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Exploring Effectiveness of Implementation of the MindUP Program Through Implementor Perspectives

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Abstract

Developing feasible universal school-based programs that help children develop social and emotional competencies is crucial for the development of improved mental health in children, especially those who have been exposed to trauma. Educators need to be motivated to implement such programs with high quality so that intended outcomes are more likely to occur, but a variety of both internal and external factors can affect implementation. The present study explores these factors by inviting the perceptions of implementers and support staff who were involved in an SEL program called MindUP. Semi-structured interviews were conducted with eight participants, the interviews were transcribed and then analyzed using a thematic analysis. Themes that emerged as important to implementation were systemic factors, individual factors, outcomes, and developing competence. Self-Determination Theory was used to frame the results. The findings suggest that having a supportive school culture, being willing to learn and internalize the MindUP philosophy, seeing a difference in the classroom, and comprehending the evidence-based concepts and curriculum, all have an influence on implementation. The findings suggest that incorporating a trauma-informed framework with MindUP and the development of a formal coaching structure help implementers effectively implement MindUP. The significance of this study is that it conceptualizes factors that implementers perceive to be important to effectively implement MindUP.

Keywords: social emotional learning program, implementation, MindUP, motivation, trauma-informed care framework

Summary for Lay Audience

Children often struggle with developing social and emotional competencies, which can lead to long-term negative consequences, such as poor mental and physical health. By having a program that develops these competencies, students can develop skills that will help them navigate through life. Social-emotional skills aid in developing good communication skills, peer relationships, self-awareness, responsible decision making, and help with academic success by teaching students to self-manage, such as regulate their emotions and manage stress. Luckily, there are programs, such as MindUP, that can aid students in developing social-emotional skills, called Social Emotional Learning (SEL) programs. For an SEL program to be successful, educators need to implement it as it was intended, since this often leads to the intended results of social emotional skills being developed. However, various organizational and personal factors can affect implementation. The purpose of this was to explore these factors. Eight district trainers (expert implementers) were interviewed regarding their experiences training implementers and their personal experiences implementing MindUP. The interviews were analyzed by looking for common themes within and across interviews. The first theme is systemic factors, which means that participants highlighted the importance of a supportive school staff, supportive relationships with other implementers, and sharing knowledge and resources. The second theme is individual factors, which means that participants believed having an open mindset and buy-in to the program helped with implantation. The third theme, outcomes, outlines how perceived successful outcomes and student behaviour affect implementation. The last theme is developing competence, which explains that participants believed that having a solid understanding of the MindUP curriculum and practices affected implementation. The key findings are that supportive school culture should be encouraged, along with the importance of developing a belief in the

effectiveness of the program and a thorough understanding of MindUP. The findings create a comprehensive outline of what factors can aid in effective implementation.

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Chapter 1: Introduction

Social-emotional wellbeing affects children in their retention of knowledge and engagement at school (Durlak et al., 2011). Effective social and emotional learning (SEL) programs aim to benefit all students by developing social and emotional competencies (Elias et al., 1997). Students often lack social and emotional competencies which can cause long term consequences, with respect to their grades, behaviour, and physical and mental health (Blum & Libbey, 2004). Schools have the opportunity to implement universal programs that could bolster cognitive, social, and emotional development. Social emotional learning is the process of learning core skills to understand and manage: emotions, different perspectives, positive relationships, positive decisions and interpersonal relationships (Elias et al., 1997). Effective SEL programs seem to benefit all children receiving them (Duncan et al., 2017;). For example, Duncan et al. (2017) found that low-income urban youth benefited from an SEL program through decreased misconduct and increased social-emotional and character development, even if the students did not have misconduct problems to begin with. Overall, SEL programs have been found to be effective for students in elementary, middle, and high school, no matter the location (Durlak et al., 2011).

1.1 Trauma-Informed Care Perspective

By the time children reach their fourth birthday, one in four children will have witnessed a potentially traumatic event (Briggs-Gowan et al., 2010). Trauma affects a child's brain development, which can then affect learning, the degree to which the child is engaging in school, and academic success (Blodgett & Dorado, 2016). As a result of exposure to trauma, students can develop internalizing and externalizing problems, such as depression and aggression (Ghosh Ippen et al., 2011). It is challenging for a student to learn and regulate their attention if a

previous traumatic experience is harming their affective, cognitive, and behavioural development (Blodgett & Dorado, 2016).

Trauma exposure is linked with difficulties developing socio-emotional, physiological, and behavioural skills, which can cause problems developing skills in the realms of attachment, affect regulation, behaviour regulation, cognition and self-concept (Cook et al., 2005; Lieberman et al., 2011; Spinazzola et al., 2005). Having few to no resources to cope with these feelings, children adapt in the best way they can (Blodgett, 2012). Unfortunately, some coping mechanisms can interfere with both quality of life and the ability to be present and engage in learning for children; for example, by interacting violently with others, or by developing physical problems such as stomach aches (Blodgett, 2012).

Students who have experienced trauma may use ways of coping that are harmful to themselves or others. They may also have few socio-emotional skills, and are often repeatedly suspended or expelled, which can lead them to drop out of school (Dorado et al., 2016; Porche et al., 2011). Punitive punishments such as expulsions can cause more harm than good, since students can be re-traumatized when punished in this fashion (Blodgett & Dorado, 2016). It has been found that trying to change student behaviours by punishments such as suspensions are not effective solutions to create behavioural change in students (Public Counsel, 2015). Unfortunately, even if the long-term effects of trauma and punitive punishment is known, many children do not receive the support and help they need, nor are they identified by their schools to receive help (Graham-Bermann et al., 2012; Lieberman et al., 2011).

One possible pathway to prevent these negative outcomes is adopting a trauma-informed care perspective in schools (McInerney & McKlindon, 2014). Using a trauma-informed framework can help teachers understand the behaviour of a student, which can in turn increase

the teacher's compassion towards the student (Dorado et al., 2016). When teachers understand trauma they can effectively respond to trauma, help reduce the negative outcomes, and support students and their learning (McInerney & McKlindon, 2014). When educators understand the effects of traumatic experiences on their students, they may shift their attitude regarding their problematic behaviour, which can lead to students decreasing their chronic trauma-related stress (Blodgett & Dorado, 2016; McInerney & McKlindon, 2014). Additionally, providing students with the skills to cope with their trauma, such as teaching social-emotional skills, can also decrease their chronic trauma-related stress (McInerney & McKlindon, 2014).

By using a trauma-informed perspective children's trauma and its symptoms are addressed (Blodgett, & Dorado, 2016). For a trauma-informed care framework to be implemented effectively, it should be incorporated with an initiative that aids educators in delivering trauma-informed care to students (Dorado et al., 2016). Universal school-based initiatives, such as an SEL curriculum, aid educators in delivering trauma-informed practices into students' lives (Dorado et al., 2016). One example is the Healthy Environment and Response to Trauma in Schools (HEARTS) program, which is a school-based, three-tier program with goals to increase student and teacher wellness, increase trauma-informed supports, and integrate a cultural and equity lens to the school,. They achieve this by going through training for staff and students, and providing a trauma-informed lens to implementing supports and interventions, such as social emotional learning curriculum (Dorado et al., 2016). Dorado et al. (2016) found preliminary support for the effectiveness of the HEARTS program, where staff reported a significant increase in their knowledge of trauma and trauma-informed practices, a significant decrease in punitive disciplinary action, and a significant improvement in students' school-based activities, such as learning.

By teaching students social and emotional skills coupled with the trauma-informed care framework, students can learn to regulate themselves and their emotions, increase their attention, and be able to process information; in other words, be able to learn, as well as engage adaptively with their peers (Schonert-Reichl et al., 2015; Streeck-Fischer & van der Kolk, 2000).

1.2 Child Development

A critical period for a child's development is during their early years (Kramer et al., 2010). As children enter school and the frequency of interacting with other children increases, they need to use their social and emotional skills to interact and communicate effectively (Kramer et al., 2010). Social emotional skills are not innate, they are typically strongly influenced by the child's interactions in their early years (Joseph & Strain, 2003). If social and emotional skills are underdeveloped, peer rejection, as well as internalizing and externalizing problems, could develop (Denham & Weissberg, 2004; Seifer et al., 2004). Compromised emotional and behavioural competencies in preschool have been shown to be associated with low academic competence, depression, anti-social actions, and school drop out in later years (Denham & Weissberg, 2004; Izard et al., 2001; Seifer et al., 2004). Since social and emotional learning is developed and influenced by the child's environment, programs that develop these skills are beneficial, since social and emotional learning is not inherent (Joseph & Strain, 2003).

Approximately 10% to 20% of youth will experience a mental disorder or illness (Canadian Mental Health Association, 2013). Since most mental health problems arise in childhood and early adolescence, there have been various school-based programs implemented in hopes of decreasing this number (de Carvalho et al., 2017; McKeering & Hwang, 2019). Implementing programs that increase social and emotional competencies are critical for increasing mental health and wellbeing amongst children and adolescents (de Carvalho et al.,

2017, Schonert-Reichl et al., 2015). An effective way to reach a large population of children universally is through school-based programs that are implemented in the classroom.

1.3 SEL Programs

Social and Emotional Learning is defined as the process of learning core skills to understand and manage: emotions, different perspectives, positive relationships, positive decisions and interpersonal relationships (Elias et al., 1997). The goals of SEL programs are to aid in the development of five competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Collaborative for Academic, Social, and Emotional Learning, 2003). Developing these interrelated cognitive behavioural competencies, creates a basis for better social and academic functioning. These competencies can help students develop better social skills, mental health, prosocial behaviour, and positive self-image (January et al., 2011; Sklad et al., 2012).

1.3.1 SEL Programs' Effects on Educators

Not only students, but teachers seem to benefit from SEL programs. One of the most stressful professions in the service industry is teaching (Montgomery & Rupp, 2005). Work-related stress can arise when an employee cannot physically or emotionally respond to the job's requirements due to their personal competencies or needs (Kyriacou, 2001). Teachers experience work-related stress when the job's requirements, such as dealing with students, become stressful because they do not have the resources to change or improve the situation (Schonert-Reichl, 2017). Moreover, stress is elicited when an employee believes they have low autonomy (Schonert-Reichl, 2017). Teaching is a profession with very low perceived autonomy, and degree of autonomy has been shown to be decreasing in recent years (Schonert-Reichl, 2017). High levels of teacher stress is associated to poor content delivery, poor student outcomes, and low job

satisfaction, and work-related accomplishment (Schwarzer & Hallum, 2008). Thus, exploring what decreases teacher stress has been a prominent research topic in the past years (Schonert-Reichl, 2017).

There has been support for the model by Jennings & Greenberg (2009) that suggests that when teachers develop certain social and emotional skills, such as emotional supportiveness, these skills aid the teachers in developing coping strategies for the stresses of teaching, as well as act as a prevention against burnout (Domitrovich et al., 2009; Jennings & Greenberg, 2009). Schonert-Reichl (2017) discusses the importance of educators developing their social and emotional skills, since it is interconnected with the SEL of students and the learning context.

De Carvalho et al. (2017) found that implementers of a SEL program called MindUP, when compared to the control group, scored significantly higher on mindful observing, self-kindness, and perceptions of personal accomplishment. Kim et al. (2021) explored the effects a trauma-informed training coupled with implementing MindUP had on educators. When these educators were compared to a control group, they had significantly decreased emotional exhaustion, which is an aspect of burnout. The study also found that educators who had undergone the training and MindUP implementation had shifted their work behaviour to a more empathetic approach from a controlled approach, had more interest in improving their personal well-being, and had better self-efficacy (Kim et al., 2021).

The past literature illustrates that it could be beneficial for future research to focus on components that can affect an educator's ability to deliver an SEL program effectively, since educators may develop their own social-emotional skills through the process, which benefits both students and the educator.

1.4 Implementation

Implementation is defined as the way a program is conducted when delivered to participants and what the program consists of (Durlak, 2011; Durlak & Dupre, 2008). An evidence-based program cannot be effective if it is not implemented well (Durlak et al., 2011). Effectiveness of programs are crucial due to the wide-reaching positive impacts they can have on children. Since programs typically produce the intended results (positive student outcomes) if they are implemented with high quality (or as intended), it is important to track implementation (Durlak et al., 2011; Reyes et al., 2012). Therefore, formative evaluations and/or research regarding internal and external factors that influence the effectiveness of implementation are critical (Domitrovich et al., 2008; Reyes et al., 2012).

Measuring high-quality implementation requires exploring two concepts, fidelity and dosage (Domitrovich et al., 2010). Fidelity is the degree to which implementers adhere to the core elements of the intervention as the creators of the program intended (Durlak & Dupre, 2008). Dosage is defined as the quantity of the program being delivered, or how much the participants experienced the program (Domitrovich et al., 2010; Durlak & Dupre, 2008). Adaptation is also significant, which is how much the original program is changed or modified (Durlak & Dupre, 2008). Some developers strongly encourage implementers to adhere to the program guidelines and believe that any deviance will affect the program's desirable outcomes, while others believe that it is inevitable that various barriers can elicit the need to adapt the program slightly (Ringwalt et al., 2003). Nonetheless, most often when a program is implemented within community settings, it is not implemented with the same quality and fidelity as it was when the program was evaluated (Domitrovich et al., 2010). Analyzing implementation

helps progress the literature regarding what is an effective school-based program and what can be done to replicate and disseminate it most effectively (Greenberg et al., 2005).

1.5 Factors Influencing the Implementation of an SEL Program

Examining factors and barriers that affect the various components of the implementation of school-based programs in real-world settings are crucial for maintaining program integrity. Understanding the factors that facilitate quality implementation is important since it is more likely that students will experience the intended outcomes of a program when the program is implemented properly (Derzon et al., 2005). A program implemented in a school has various complex, interdependent factors that affect implementation quality (Domitrovich et al., 2008). These factors influence if an SEL program will be implemented correctly by implementers, and create positive student outcomes. Internal, external, and organizational factors will be explored.

1.5.1 Personal Factors

1.5.1.1 Teacher Buy-In. Since intervention teachers are the primary mode of delivery of a program, personally supporting the program affects the impact of the program (Brackett, et al., 2012). Implementation quality is more likely to be high when intervention teachers implementing the program have positive perceptions and attitudes toward the program, and the perceived value of the program is high (Domitrovich et al., 2008). For example, how excited and confident a teacher is during program delivery is associated with implementation fidelity (Brackett et al., 2012). There is a higher chance of better program implementation when a teacher's views are congruent with the program, but unfortunately teacher resistance is common when implementing SEL programs (Reyes, 2012).

The commitment of a teacher to implement an SEL program does not stop after a skill is taught. For an SEL program to be effective, core skills from the program need to be intertwined

with everyday instruction and activities (Schonert-Reichl et al., 2015; Bierman & Erath 2006). Bierman & Erath, (2006) showed that children benefit most from an SEL program when there are multiple times throughout the day to practice their SEL skills in varying circumstances.

1.5.1.2 Burnout. Burnout is a multidimensional construct that can be defined as a result of prolonged emotional stressors of a job, often when that job involves dealing with others who need help (Maslach, 1999). Burnout has three interdependent factors, which are emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981). Teachers have been shown to have more negative perceptions of a new school initiative as a result of burnout (Evers et al., 2002). Ransford et al. (2009) found that SEL practices are negatively associated with burnout, and Brackett et al. (2010) found that good SEL skills could lead to a decrease in burnout and increase in job satisfaction.

Teachers who perceived the culture of their school to support their SEL program had low levels of emotional exhaustion, which is an aspect of burnout (Brackett et al., 2012). Specifically, teachers who report inadequate levels of support coupled with high burnout reported very low degrees of implementation quality and dosage (Ransford et al., 2009). Burnout may lead to low implementation quality since burnout can reduce the educator's motivation and energy to initiate the SEL program (Damschroder et al., 2009).

Brackett et al. (2012) found that teachers that have greater comfort in teaching SEL programs are less likely to depersonalize their students, and depersonalization of students is associated with burnout. In other words, when a teacher has a positive relationship with their students, they are less likely to be vulnerable to burnout (Domitrovich et al., 2008).

1.5.1.3 Efficacy. The perceived self-efficacy of teachers can affect program outcomes. Efficacy is defined as teachers feeling like they can influence student behaviours and manage the

classroom (Tschannen-Moran, & Hoy, 2001). High self-efficacy was found to be associated with high implementation dosage and negatively associated with burnout (Ransford et al., 2009).

1.5.2 Environmental Factors

1.5.2.1 Support System. The support system supports intervention teachers to have the means to deliver the program as it was intended, therefore reducing variability in implementation. A support system commonly includes pre-intervention training, peer supports, and a coach or mentor that is knowledgeable on the program being implemented (Domitrovich et al., 2008). Coaching intervention teachers involves providing support and giving immediate feedback, such as providing advice regarding necessary modifications to the program (Reyes et al., 2012; Schonert-Reichl et al., 2012). When training and coaching are combined, teachers are significantly more likely to apply the knowledge they have learned in training while teaching in the classroom, compared to training alone (Reyes et al., 2012). Ransford et al. (2009) found that teachers' positive perceptions of their support system, such as training and coaching, were associated with high quality implementation. Wehby et al. (2012) support this claim, since they found that the relationship between the implementer and their coach was a significant factor associated with program implementation. Interestingly, burnout had no effect on implementation when a strong alliance between the teacher and the coach was present (Wehby et al., 2012).

1.5.2.2 School Culture. Domitrovich et al. (2008) stated that school culture is the way people in the school regularly do things; it is embedded in the beliefs and assumptions held by school members, such as the norms and values of a school. Positive and supportive school culture may contribute to staff member's motivation to implement a program (Domitrovich et al., 2008). The degree to which an intervention teacher believes that the school's culture and

involvement support the SEL program is likely to affect the program outcomes (Brackett et al., 2012).

School culture is also influenced by the classroom environment (Koth et al., 2008) Certain characteristics of a classroom, such as a classroom with poor student-teacher relationships, could negatively influence program implementation and effectiveness (Domitrovich et al., 2008). Additionally, the classroom climate can become shifted when there is a high degree of students with behaviour problems, since what is acceptable in a classroom becomes distorted (Koth et al., 2008). If educators need to spend more time addressing behavioural issues, they have less time to teach, which could have an impact on the classroom environment (Koth et al., 2008).

1.5.2.3 Administration. School involvement is a factor that affects implementation fidelity and sustainability, since it affects the intervention teachers and the students receiving the program (Domitrovich et al., 2008; Ringwalt et al., 2003). Schools having policies and priorities that align with the program being delivered most often positively affect implementation (Ringwalt et al., 2003). Furthermore, the school's principal's involvement is a significant element of school culture and affects program implementation and sustainability (Brackett et al., 2012). Kam et al. (2003) found that school-based programs were most successful when there was adequate support from the principal. Implementing educators perceive strong support from school and district leaders as necessary for the promoting and implementing SEL skills in their school and classroom (Bridgeland et al., 2013).

1.5.2.4 Parent Characteristics. Parents of children receiving the SEL program can affect outcomes. By having the family engaged in the SEL program, parents can help children develop the SEL skills at home (McClelland et al., 2017). Effective programs such as Incredible Years

have a component to the program for family involvement (McClelland et al., 2017). Family engagement can look like a take-home newsletter about the program, or workshops where SEL skills-based activities are shared. The family can be directed on how to support the child's SEL and how to practice and explore these skills as a family (McClelland et al., 2017).

1.6 Incorporating Mindfulness with SEL Programs

School-based programs where social and emotional learning are integrated with mindfulness have been gaining traction in recent years. Integrating SEL with mindfulness has been shown to be beneficial because both mindfulness-based interventions and SEL programs aim to promote self-regulation, social and emotional skills, compassion, empathy, and stress-reduction in students (de Carvalho, et al., 2017). After students were exposed to programs that incorporate SEL and mindfulness, students showed greater emotional well-being, improved behaviour, and higher performance in school, such as higher math grades (Durlak et al., 2011; Schonert-Reichl et al., 2015). Mindfulness practices enhance SEL programs because they show children how to develop adaptive skills, such as increasing self-control and reflecting on external and internal factors, through interactive activities.

Research has demonstrated that when teachers practice mindfulness, they can increase job satisfaction, compassion, empathy, and emotion regulation, and decrease stress and burnout (Schonert-Reichl, 2017). A review has found that mindfulness programs for teachers are effective since participants showed significant increases in the degree of being able to form positive relationships with students, as well as higher levels of mental well-being and self-efficacy in the classroom (Meiklejohn et al., 2012).

There is clear evidence that school-based programs create positive outcomes for students and teachers (Domitrovich et al., 2010; Schonert-Reichl, 2017). These school-based programs

can only continue being effective if implementation quality is high, meaning that program components are being conducted clearly and correctly (Domitrovich et al., 2010; Durlak & Dupre 2008; Reyes et al., 2012).

1.7 MindUP

MindUP is an SEL program developed for kindergarten to grade eight students ((Hawn Foundation, 2008; Maloney et al., 2016). MindUP is implemented in schools, typically by the educator. Educators who plan on implementing MindUP typically attend an introductory, full day, interactive training session at the beginning of the school year, and a 'booster session' about four months afterwards (Maloney et al., 2016).

MindUP was created using evidence-based positive psychology, developmental neuroscience, contemplative science, and mindfulness, and the curriculum is composed of 15 lessons which are delivered about once a week for about 40-50 minutes (Schonert-Reichl et al., 2015). The program aims to promote children's executive functions, including stress regulation and prosocial behaviour, through instruction and activities (Maloney et al., 2016). The curriculum is designed to develop emotional and social competencies that include self-awareness, relationship skills, social awareness, acts of kindness, and responsible decision making (Maloney et al., 2016; Thierry et al., 2016).

MindUP's lessons include the parts of the brain and their functions, expressing gratitude, integrating mindfulness with the senses (such as mindful eating), self-regulation, positive mood (such as learning what optimism is), and social-emotional understanding (such as empathy) (Schonert-Reichl et al., 2015; Thierry, et al., 2016). MindUP has an ecobehavioural systems orientation where social-emotional skills are weaved into the curriculum so that students internalize the lessons throughout the day and maintain a positive classroom environment

(Schonert-Reichl et al., 2015). A critical component of MindUP is a 'brain break' which is done 3 times a day, every school day. A brain break consists of the intervention teacher hitting a small chime, with the students listening to the chime while focusing on their breath (Schonert-Reichl et al., 2015). MindUP has been found to be a successful universal mindfulness-based social and emotional learning program; effective regardless of student's cultural background, socio-economic status, implementation teachers' teaching experience, cultural backgrounds, and knowledge in mindfulness (de Carvalho et al., 2017; Schonert-Reichl et al., 2015; Thierry et al., 2016).

1.7.1 Effectiveness of MindUP

Most studies published about MindUP report positive outcomes. Schonert-Reichl et al. (2015) examined the program outcomes for grade four and five students in Western Canada. Students in the MindUP program, compared to students in a social responsibility program, showed a high degree of improvements in executive functioning, stress physiology, social skills, peer acceptance, empathy, optimism, mindfulness, and taking other's perspective. They also self-reported decreases regarding depression and aggression. Crooks et al. (2020) had similar results, where they found that students who participated in MindUP had a reduction of internalizing and externalizing behaviour problems, a reduction in executive function deficits, and an increase in adaptive skills. Furthermore, a study by Maloney et al. (2016) echoed the past findings, reporting improvements in student's socio-emotional skills, mindful awareness, emotion regulation, academic achievement, and mental and physical wellbeing, such as improvements in positive affect and staying calm. From the perspective of Canadian students in grades four to seven, MindUP was reported as enjoyable, educational and valuable (Maloney, 2015). Mindfulness activities were reported to be the most enjoyable part of the program (Maloney, 2015).

Another study exploring the effects of the MindUP program for low-income kindergarten students in the Southwestern United States also reported positive outcomes. Thierry et al. (2016) found that teacher reports showed that students who participated in MindUP had higher levels of cognitive control, such as working memory, planning and organizing, as well as academic achievement, specifically for reading and vocabulary, when compared to a control group. This study illuminates that emotional and cognitive control can help develop different aspects of executive functioning (Thierry et al., 2016).

De Carvalho et al. (2017) incorporated MindUP into third and fourth grade classrooms in Portugal. They found that more than half of the students in the MindUP classrooms had greater improvements than the waitlist control group in social and emotional skills, such as the degree of emotional regulation, positive affect, positive emotions, and self-compassion, such as common humanity and perspective taking. Children in the MindUP group were also found to have a significant decrease in the suppression of their emotions, which could suggest becoming more competent in mood repair (de Carvalho et al., 2017; Gross & John, 2003).

De Carvalho et al. (2017) also examined the effects of MindUP on teachers' socio-emotional wellbeing and found that teachers who implemented MindUP reported increased self-compassion and self-kindness and improved personal accomplishment and observing (de Carvalho et al., 2017).

1.7.2 Review of Past MindUP Implementation Literature

Prior studies that explore the effectiveness of MindUP in schools often focus on the effectiveness of the intervention, and rarely discuss implementation, as well as perceived barriers or teacher perceptions of the program. There is emerging literature on what factors teachers perceive as important in implementing SEL programs effectively, but no literature to date has

explored this concept with respect to MindUP (Exner-Cortens et al., 2020). Below is a summary of the published literature to date regarding the implementation of MindUP.

The focus of the Schonert-Reichl et al. (2015) study was to assess if the intended outcomes of MindUP were reflected in the students who underwent the intervention. However, they did touch on the concept of implementation, by reporting dosage regarding the lessons (100% implemented) and breathing exercises (80-95% implemented) during a randomized control trial. Implementation diaries were mentioned, but no results were discussed since the goal of the study seemed to be the examination of student outcomes. Nonetheless, a limitation of the Schonert-Reichl et al. (2015) study is the extremely low sample size (n=2) of teachers who implemented MindUP.

Thierry et al. (2016) produced a study examining outcomes of the MindUP program on preschoolers' self-regulation and academic performance, and did touch on implementation. The study reports that the four educators who implemented MindUP filled out implementation surveys, which asked about dosage and student engagement. The implementers reported implementing all 15 lessons and high student engagement throughout the 15 lessons.

A study by Crooks et al. (2020) also focused on program outcomes, and Maloney (2015) focuses on student perceptions of MindUP. Nevertheless, it makes sense for most studies to focus on outcomes, due to the early stages of MindUP research, and a need to determine its validity. Some studies, such as De Carvalho et al. (2017), suggest implementation and fidelity should be examined in future studies.

Maloney et al. (2016) produced a chapter highlighting the benefits of MindUP, as well as the importance of student perceptions. They comment on process evaluations and that they are important for ensuring fidelity, but note the lack of studies that include them. They also discuss

training that educators undergo. Further, Maloney et al. (2016) do have excerpts of teacher perceptions and reflections about the program focusing on challenges, implementing MindUP throughout the curriculum, and program components. The teachers' perceptions of MindUP were grouped into four themes: program components, observations of student behaviour, challenges, and extensions into regular curriculum and classroom life (Maloney et al., 2016). The direction of the excerpts for each theme were mostly towards students and outcomes (Maloney et al., 2016). Of note, there was a short excerpt where a teacher stated that the implementation challenges she faced were that they needed more time, resources and training (Maloney et al. (2016).

One can see that teachers' opinions on MindUP, such as concepts that affect implementation and motivation, are most often not included in the published literature, and if they are, they are usually not explored in depth. MindUP research is generally still in its early stages of research, where researchers primarily focuses on exploring student outcomes rather than what factors affect the effectiveness of MindUP; which is expected, since examining the effectiveness of the program, (i.e., if the program *actually* works) commonly takes precedence over other avenues of research.

1.7.2.1 Northern Ugandan Research on MindUP. A recently published study based in Northern Uganda does discuss implementation significantly more in depth than any other study to date (Matsuba et al., 2020). A culturally adapted version of MindUP was administered to students in grade five, six and seven, over the course of two years. The researchers collected extensive observational data of teachers implementing MindUP (Matsuba et al., 2020). Teachers also kept notes of challenges and successes to implementation and participated in a questionnaire at the end of the study (Matsuba et al., 2020). Matsuba et al. (2020) found that the facilitators of

implementation were the brain break and the benefits to the children. Another facilitator was the benefits to teachers, such as having better relationships with children and the benefits of personally using social and emotional skills (Matsuba et al., 2020). The researchers and teachers also identified several challenges. The barriers to implementation that teachers faced were classroom challenges, such as overcrowded classrooms, incongruent values between the Ugandan education system and MindUP, and high teacher turnover (Matsuba et al., 2020). Teachers found some of the concepts challenging due to their limited background knowledge and conceptual/translation issues (Matsuba et al., 2020).

Fidelity was also assessed by detailed notes completed by the implementing teachers. In the first year of implementation, six out of seven teachers completed all 15 lessons (Matsuba et al., 2020). There were some issues in evaluating dosage, but it was assessed that the MindUP cohort of students received each mindfulness lesson at least once (Matsuba et al., 2020). During the second year of implementation, the seven teachers reported on dosage, where teachers report doing 1 to 2.5 MindUP lessons a week, and 10 to 18 brain breaks a week (Matsuba et al., 2020).

Matsuba et al. (2020) illustrate that student outcomes and implementation challenges can be discussed within one study, to create a clear picture of what implementing MindUP looks like and its results. Due to the exploratory nature of the study, the significance of MindUP in a traumatized population, and the fact that MindUP was adapted for this population, it makes sense for the researchers to explore implementation challenges and successes.

The present study will similarly explore concepts that expert MindUP implementors perceive to affect their implementation. Clearly, there is a myriad of factors that affect implementation of a program, and the people administering it. To gain a better understanding of

what factors affect implementers' motivation to implement a program with high quality, the Self Determination Theory was used as a theoretical framework.

1.8 Self Determination Theory

There are various complex, interdependent factors that can affect implementation. More specifically, the present study explored what supports and experiences implementers need to implement MindUP successfully, so I have chosen the Self Determination Theory (SDT) to use as a theoretical framework. Self-Determination Theory (SDT) may help frame educators' motivation to implement an SEL program.

Self-Determination Theory identifies core principals underlying sustainable motivation (Stone et al., 2009), and posits that all people are inherently motivated to achieve, and that they will do tasks if they understand their meaning and value (Ryan & Deci, 2000). Intrinsic motivation is defined as one doing an action for the inherent satisfaction of doing it (Ryan & Deci, 2000). This goes against carrot and stick approaches, which claim reward is at the root of motivation (Stone et al., 2009). If tangible reward is at the root of motivation, then the quality of work can suffer, since deception and cheating can lead to reward (Deci et al., 1999).

Studies show that when comparing individuals' motivation to do a desired activity, individuals whose motivation is intrinsic have more interest in the activity and self-confidence, when compared to those externally motivated (Deci & Ryan, 1991; Sheldon et al., 1997). Further studies show that this excitement to do an activity due to intrinsic motivation leads to a better performance of the task, as well as an increase in creativity and persistence, (Deci & Ryan, 1991; Sheldon et al., 1997) self-esteem (Deci & Ryan, 1995) and general wellbeing (Ryan, Deci, & Grolnick, 1995). Overall, this theory of intrinsic motivation explores the factors that create sustainability of innate motivation, rather than what causes it (Ryan & Deci, 2000). In the

context of SDT, this exploration of intrinsic motivation may be of value in understanding of high-quality implementation of SEL programs.

Intrinsic or internalized motivation is affected by the degree to which the new behaviour is internalized or integrated with an individual's sense of self (Deci & Ryan, 2000). Deci & Ryan (2000) explain that "internalization refers to people's "taking in" a value or regulation, and integration refers to the further transformation of that regulation into their own so that, subsequently, it will emanate from their sense of self" (p. 71). As people internalize behaviours, values or regulations and view them as a part of themselves, then they experience greater autonomy (Deci & Ryan 2000). Developing greater autonomy is a goal since it contributes to meeting an individual's key psychological needs, which influences degree of motivation.

Extensive empirical research has found, cross-culturally, that an individual needs competence, autonomy and relatedness to be psychologically healthy (Deci & Ryan, 2008). Satisfied feelings of relatedness can stem from developing close relationships, personal growth, and contributing to one's community (Ryan, 2009). SDT posits that this new behaviour should facilitate feelings of relatedness, since these feelings of relatedness can help lead to internalization. (Ryan & Deci, 2000). These concepts are crucial in understanding how different factors, such as interpersonal and organizational factors, affect autonomous or reward-based motivation (Deci & Ryan, 2008).

Cognitive evaluation theory is a sub-theory of SDT. This theory by Deci and Ryan (1985) posits that social events such as receiving positive feedback and communication, that cause an implementer to feel competent, increases that implementer's intrinsic motivation. Therefore, cognitive evaluation theory states that if there are favourable circumstances, then intrinsic motivation will thrive (Ryan & Deci, 2000). Exploring favourable circumstances from

the perspective of teachers implementing SEL programs can lead to insights regarding how implementation quality can be affected by these circumstances. Examples of favourable circumstances are positive performance feedback, no demeaning evaluations, opportunities for choice and self-direction, and validation of feelings (Deci & Ryan, 1985; Ryan & Deci, 2000). Further, studies have shown that competence when coupled with the knowledge that they can make autonomous choices, or in other words, a feeling of autonomy, leads to intrinsic motivation (Ryan & Deci 2000).

Implementers need to view SEL programs as non-threatening and helpful to their basic psychological needs to be intrinsically motivated to implement (Assor et al., 2009). When we consider the reasons why evidence-based programs implemented in schools do not show the expected results, it is important to acknowledge that it may be due to lack of time devoted to helping the teachers internalize the goals and values of the program (Assor et al., 2009). Therefore, exploring the sustainability of a program through the lens of a theory that encourages intrinsic motivation and autonomy is crucial, especially in the context of new, unfamiliar educational programs (Assor et al., 2009; Ryan & Deci, 2000).

Training people to implement programs through a Self-Determination Theory lens can be beneficial, since SDT emphasizes internalization of the program (Assor et al., 2009). This can only happen when implementers are encouraged to fully understand the merit and importance of the program (Assor et al., 2009). An implementer could be motivated to implement with high quality when an implementer's and their organization's values and identity are aligned with the program. This could happened if implementers feel competent in delivering the program (competence), other educators are also implementing the program and have internalized its value

(relatedness), and implementers are given the time to attend trainings, prepare, and implement MindUP as they see fit (Assor et al., 2009; Ryan & Deci, 2000).

The present study will explore if an SEL program called MindUP, encourages autonomous internalization, and if implementer's basic psychological needs of competence, autonomy and relatedness are met.

1.9 Use of 'Self' in Research

In qualitative research, the researcher's worldview cannot be separated from the research (Yeh & Inman, 2007). Being aware of a researcher's identity and self-construction influence the significant choices the researcher makes regarding how the data is understood, analyzed, and conveyed (Hoshmand, 2005). To bring to light parts of my identity and worldview that could influence the research and with respect to the importance of full transparency (Braun and Clarke, 2006), I will disclose several personal characteristics that could influence my analysis of the data. Bringing this self-awareness into my research can help the reader and myself understand how the 'self' shapes and interprets the data (Yeh & Inman, 2007). Of significance is that I am a student in a Master of Arts Counselling Program, and through the experiences I have had with this education come certain beliefs and attitudes, such as understanding the importance of social justice, trauma and its effects, and the importance of social and emotional skills. My experiences have swayed me to have similar personal values aligning with the MindUP philosophy, as well as being a supporter of SEL programs being implemented in schools. Therefore, I am a supporter of MindUP, and I am motivated to uncover what motivates implementers to implement MindUP with high quality, so it can have positive effects for students.

Furthermore, as a child of immigrants who left a war-torn country with economic and political issues, the concept of school was military-like, and the concept of mindfulness was not

included in education curriculum, at home or at school. My mother adapted these values when she started her career as an educator, where she brought a no-nonsense attitude to the field. Hearing her experiences of over-worked, stressed and burnt-out educators have helped me understand the significance of personal characteristics on SEL program implementation. Consequently, the perspectives of different district trainers spoke to me since I understand the influence educator attitudes' can have on students and the classroom environment, and the importance of creating an environment where high quality implementation can thrive. I have been immersed in opposing perspectives, one of a researcher who supports SEL programs and understands their development, and one of an educator who is on the ground floor of implementation, who has experienced the pitfalls and challenges to new school-based programs. I have taken the necessary steps to attempt to suspend judgment and separate myself from my experiences; actions were taken to increase the trustworthiness of the paper, discussed in the Data Analysis section below.

1.10 Present Study

The present study explored which concepts influence educators to implement MindUP effectively. It uses concepts from the Self Determination Theory as one possible framework to understand what motivates educators to implement MindUP. The present study explored factors that could influence the effectiveness of MindUP implementation from the perspectives of expert implementers. District Trainers who are educators or professional support staff, who had either implemented or supported the implementation of MindUP for at least one year, and volunteered to train and support other MindUP educators, were interviewed. District Trainers provided insights regarding what motivated them to support and teach the MindUP curriculum, personal knowledge and beliefs needed to implement effectively, adaptation and integration of the

program, and the trauma-informed framework they used throughout implementation. They also provided insights regarding what role supports play in implementation, and how external factors such as organizational characteristics affect motivation, and in turn, implementation. Through this qualitative study, I hope to shed a light on what encourages educators to remain motivated to implement universal evidence based SEL programs with high quality.

2. Methods

2.1 Participants

Researchers at Western University's Centre for School Mental Health partnered with a local publicly funded school board to implement MindUP. The current study is part of a larger study, where between 2016 and 2020, 51 educators in 16 schools in the School Board participated in MindUP implementation and research in collaboration with Western University.

Eight school board staff called *district trainers* were recruited to train MindUP educators, as well as provide support to educators implementing the program. The eight district trainers include four educators and four professional support staff. The district trainers are experts in MindUP who volunteered to support implementors and the program. They were trained to conduct the trainings at the beginning of the year, and to help facilitate other MindUP meetings such as the 'booster session.' All four educators had implemented MindUP for at least one year before they were selected to be District Trainers. Most district trainers attended a Trauma-Informed Care workshop as a part of the training, which was introduced and executed by lead researchers spearheading the university-school board partnership. Refer to Table 1 for a detailed account for the participants' specific roles. The specific job titles of participants were not included in the results report to protect anonymity.

Table 1: Participant/ District Trainer Job Titles

General Employment Category	**Specific Job Title**
Professional Support Staff	Social Worker
Professional Support Staff	Social Worker
Professional Support Staff	Early Years Support Specialist
Professional Support Staff	Early Years School Based Facilitator
Educator	Teacher
Educator	Teacher
Educator	Teacher
Educator	Early Childhood Educator

2.2 Procedure

I initially participated in the introductory MindUP training to gain a better understanding of the program. At this training, I met several district trainers, but was unaware that they would be the participants. The district trainers were introduced to me during an online weekly support conference call with the school staff and Western University. The district trainers were made aware of the purpose of the research and their potential role in it. Then, I sent an email to potential participants, (Appendix A), including the formal email invitation (Appendix B), the consent letter and consent form (Appendix C), and the interview questions (Appendix D). The voluntary nature of participation was made explicit, participants contacted me directly, and no other school board staff was made aware of their participation. Participants were told they would be compensated for their time with a virtual $20.00 gift card of their choice (Appendix B)

District trainers participated in semi-structured interviews post-intervention, which were done in a group or individual format, based on their preference. Two implementors did the interview together, while the rest did solo interviews.

The interview questions were developed by referencing the Self-Determination Theory lens (Deci & Ryan 2000) where questions focused on competence, autonomy, and relatedness in an implementation context, as well as Domitrovich et al.'s (2008) conceptual framework regarding maximizing implementation quality in schools. The interview questions were open-ended and explored personal and environmental factors affecting implementation, the trauma-informed framework, adaptability of the program, support provided by district trainers, advice to future implementers, and perceived strengths and limitations to the program (Appendix D).

The interviews were done online since the participants were interviewed during a pandemic. Interviews took place over Zoom (Zoom Video Communications Inc., 2016). Zoom is an online videoconferencing service which allows two or more parties to communicate through video calling using a computer, tablet, or mobile device (Archibald et al., 2019). The interviews were securely recorded through Zoom, and were transcribed using trint.com, concealing participant identities by assigning an anonymous identifier to each participant (Archibald et al., 2019). The interviews ranged from 19 to 41 minutes, with an average of 28 minutes.

Participants who were teachers were given the label "Participant T" followed by a number between one and four, and participants who were professional support staff were given the label "Participant P" followed by a number between one and four. Participants were given the opportunity to engage in member-checking, which is when participants receive a copy of their respective interview transcripts to ensure accuracy and/or to adjust responses (Harper & Cole, 2012).

2.3 Data Analysis

After the interviews were transcribed through trint.com and approved by participants, a thematic analysis was undertaken using dedoose.com. An iterative, grounded theory approach was chosen to conduct the data analysis, called thematic analysis to understand and create meaning from multiple participant's realities. A thematic analysis is appropriate for the given data because it is a flexible form of analysis, which can allow the researcher to create a rich account of the content across the entire data set, as well as a suggested course of action for novice analysts like myself (Braun & Clarke 2006; Braun & Clarke, 2012). To ensure trustworthiness, I consciously suspended my past knowledge and assumptions, and explored and analyzed interview data in an unbiased, open minded way (Starks & Trinidad, 2007). Grounded theory researchers have labeled this act as 'bracketing,' and encourage it to be undertaken during qualitative analysis (Starks & Trinidad, 2007). A reflexive practice I engaged in was writing memos throughout the analysis, which served as a way to keep track of how the data are understood, how different accounts relate to one another and how my understanding of the answer to the research question evolves (Stark & Trinidad, 2007).

2.3.2 Thematic Analysis

Braun & Clarke (2012) conceptualize thematic analysis as a way to organize data into themes which show a pattern, or a story, that answer a specific research question. The goal is to identify and organize the data with its own commonalities and exploring what these commonalities, or themes, mean in relation to one another and the research question (Braun & Clarke, 2012). It is important to be transparent regarding this process (Braun & Clarke, 2006). For example, how prevalence is measured is relevant (Braun & Clarke, 2006). Braun & Clarke (2012) mention that one code should be used at least twice, but due to the exploratory nature of

the study, I did not want to leave anything out, thus including all relevant codes, no matter the prevalence.

Further, it is important to note that I chose a realist methodological approach and consequently, a semantic approach. In a semantic approach, codes and themes are classified using the explicit meanings of the data, and no meaning or motivation behind what was said was given significance (Braun & Clarke, 2006). This was deliberately chosen due to the nature of the data and participants. Further, after the semantic content is neatly organized, interpretation is permitted to create greater meaning and hypothesize the significance of the story elicited, which is often compared and with past literature (Braun & Clarke, 2006). The present study honours this notion and explored utility of applying SDT in relation to the results.

An inductive approach was used throughout the present thematic analysis, since the codes generated were not put in a pre-existing coding framework, nor was the coding driven by a specific theoretical orientation (Braun & Clarke, 2006). Due to the nature of the data, the codes were derived from what is in the content of the data, therefore they are closely linked to the semantic data content, further solidifying the use of the inductive approach (Braun & Clarke, 2006). Yet, as Braun & Clarke (2012) suggest, no research is purely inductive or deductive. The present study did have a pre-conceived research question which was not derived after the thematic analysis, which strays from the philosophy of an inductive approach. Lastly, Braun & Clarke (2006) suggest that taking a semantic approach, considering meaning across the entire data set, and having a realist approach, often cluster together.

2.3.3 Phases of Thematic Analysis

2.3.3.1 Phase One. In phase one, the researchers familiarized themselves with the data by transcribing, reading, and actively listening to it. Active note taking was undertaken during this

stage regarding the thought process and points of interest, through a function in dedoose.com called ‘memos.’

2.3.3.2 Phase Two. During phase two the researchers generated the initial codes. The purpose of codes is to first identify a piece of relevant data, and then to label it (Braun & Clarke, 2012). Existing codes can be modified during the coding process (Braun & Clarke, 2012). There is no maximum number of codes. (Braun & Clarke, 2012). Data can be coded with more than one code, and it is encouraged to code for as many potential themes as possible (Braun & Clarke, 2006). Once all significant data had been coded, phase three began (Braun & Clarke, 2012).

2.3.3.3 Phase Three. In phase three, themes were searched for within the codes. A theme is a pattern within the responses, and is generated to help answer the research question (Braun & Clarke, 2012). I explored what codes were similar, and grouped them into unifying potential themes (See Appendix E, Figure E1). The goal was to find themes of patterned responses, for the themes to build off of one another, and to create a coherent story that answers the research questions (Braun & Clarke, 2012).

2.3.3.4 Phase Four. In phase four, the researchers reviewed potential themes (See Appendix E, Figure E2). Themes are altered, broken down, or merged together (Braun & Clarke 2006). All excerpts were reviewed and assessed in relation to the theme they are under (Braun & Clarke, 2006). Further, the entire data set is re-read, to ensure that the themes accurately reflect the entire data set, as well as to code any excerpts not initially coded (Braun & Clarke, 2006).

In essence, this phase was a quality check, where excerpts of each theme are compared, for no overlap (Braun & Clarke, 2012). A good theme is one with internal homogeneity, meaning that the codes within the themes cohere together meaningfully, and external heterogeneity meaning that there are clear, distinct divisions between themes. Boundaries of themes can often

be adjusted during this phase; themes often merge, or are discarded or altered (Braun & Clarke, 2012). During this part of the data analysis, I grouped codes into potential themes, and explored where clear divisions within the data could be created to create distinct themes (external heterogeneity), and which codes could be folded into one another to create themes where the data merges in a meaningful way (internal homogeneity). At this point in the data analysis, the potential themes were debriefed with members of the Centre for School Mental Health using thematic maps (Appendix E), the purpose being an external consultation on the data analysis process.

2.3.3.5 Phase Five. In phase five, the themes were named and defined (See Appendix E, Figure E3). Each theme had a specific focus, were not repetitive, and directly addressed the research question (Braun & Clarke, 2012). Subthemes within themes were permitted (Braun & Clarke, 2012). Excerpts of the data were chosen to represent the theme and to illustrate the analytic point. Each analytic point had more than one example (Braun & Clarke, 2012).

2.3.3.6 Phase Six. In the last phase, phase six, the researchers wrote the report. It is encouraged to make an argument that answers the research question through themes that build off of one another and explain a story of the data (Braun & Clarke, 2012). It is crucial that each theme not only has excerpts, but an analysis and interpretations of the chosen excerpts (Braun & Clarke, 2012).

3. Results

After the data analysis was complete, four themes emerged that gave insight to what motivates educators to implement MindUP, namely: Systemic Factors, Individual Factors, Outcomes, and Developing Competence. Each theme had two to three subthemes embedded within it. The theme named Systemic Factors speaks to the importance of a solid organizational

and cultural foundation which are outside of the control of an individual implementer, to successful implementation. This theme has three subthemes: Resources, Relationships, and Culture. The second theme, Individual Factors, describes the attitudes and beliefs an educator needs to be motivated to implement MindUP. The subthemes include Mindset, Belief in the Program, and Open to Integrating MindUP into the School Day. The third theme was Outcomes, which highlights that both student and educator outcomes affect implementers' motivation and has two subthemes: Student Engagement and Evidence of Success. Lastly, the fourth theme Developing Competence represents the importance of implementers understanding of the concepts and rationale behind MindUP skills to successful implementation of high-quality programming The subthemes for the fourth theme are Understanding 'Why' and With Experience. To summarize, the following table outlines the themes and the supplementary subthemes (See Table 2).

As Braun & Clarke (2006) state, themes should have clear boundaries, but Domitrovich et al. (2010) show that factors influencing high quality implementation of SEL programs are often complex and interconnected. In the current data analysis, themes are interdependent, and a couple of subthemes within themes overlap, as well as intertwine with other subthemes, which was expected given the complexity of any system.

Table 2. Summary of Main Themes and Subthemes

Themes	Subthemes
1. Systemic Factors	i. Resources ii. Relationships iii. Culture
2. Individual Factors	i. Mindset ii. Buy-In iii. Open to Integrating MindUP into the School Day
3. Outcomes	i. Student Engagement ii. Evidences of Success
4. Developing Competence	i. Understanding *Why* ii. Experience with MindUP Effects Implementation

3.1 Systemic Factors

Systemic factors are organizational, school-level factors that are outside of the control of the implementer. Systemic factors are ones that are inherent to the system the implementer is affected by, such as policies, administration, and school culture (Domitrovich et al., 2010). Damschroder et al. (2009) discuss the importance of having system wide support during any new initiative implemented.

3.1.1 Resources

Resources are people, events, or things, that implementers can use to support the implementation process. Resources can include trainings, coaches, and money. The main resources discussed by participants were: the support provided by district trainers, sharing knowledge amongst implementers, and the online portal.

Implementers often discussed the importance of extra resources other than the manual, such as access to district trainers, sharing resources with one another, and sharing knowledge. District trainers had different experiences regarding the extent they were used as a resource. Most professional support staff shared that educators most often do not reach out to them for support, and their expertise is only used while they are training other implementers during the training sessions. Similarly, an educator shared that educators from other schools do not contact them. One professional support staff, Participant P3, had a different experience due to a demand in support from educators:

> "I mean, I had one school that was really interested in having sort of a community of practice, I would say, around MindUP. I happened to be in that school. So we just decided to do it over lunch … So that's what I mean, there's nothing formalized, but these kinds of things just kind of pop up here and there. I think it

would be nice if there was something a little more formal. So it was just brought up by the implementers saying we want this" (Participant P3).

No participant explicitly voiced concern regarding a lack of supports, since most implementers either did not have any implementer reach out to them, or if anyone did, it was educators that they worked with in their school. Nonetheless, a participant highlighted the importance of other implementing educators in their school, by sharing that "… having other colleagues in the school… that's something that is definitely helpful because then they can share resources" (Participant T2). For example, Participant T3 had "made a Smart Board presentations for each of the fifteen MindUP lessons, and [they have] shared those with … anyone who's asked." Participant T1 shared that they "give [implementers in their school] information, answer their questions, provide personal experiences and knowledge from what we've learned throughout implementing the program." Interestingly, the same participant shared that some educators who were not "implement[ing] to their full degree" seemed to be uninterested in collaborating, while other educators sought support and collaborated with the district trainer, which they found "super helpful."

Some district trainers shared that they would do live or recorded demonstrations of MindUP lessons or skills for other implementers. Participant P2 shared that they "prepared the first six weeks and modeled what MindUP can look like in the classroom" to an overwhelmed educator. Two implementers who work as a team shared that they have done demonstrations for other classrooms in their school and other schools, as well as made demonstration videos. Lastly, half of the participants discussed the online portal, citing it as "helpful" to be able to access various resources, especially if an implementer needs some assistance being "creative."

3.1.2 School Culture

The culture, or climate, of an organization is encompassed by the norms, values and general assumptions it has (Gershon et al., 2004). The school climate and its readiness for implementing a program depends on its capacity for change, the degree that the individuals in the organization are receptive of the intervention, and to the extent the intervention will be supported by the organization as a whole (Damschroder et al., 2009). Participants shared the importance of a supportive, understanding administration within the school, as well as other implementers in the classroom, and student's parents supporting MindUP.

The importance of an administration who understands and supports MindUP was echoed amongst all participants. Participants expressed that having a supportive administration that: allows educators to have space for planning and preparing MindUP lessons, does not impose strict deadlines for completion of MindUP lessons, does not overwhelm educators with extra responsibilities, and allows educators to take time to collaborate with other implementers or attend trainings, helps with supporting MindUP implementation. Participants also highlighted the need to have a positive school culture, where there is someone in the school "who is really like a cheerleader for the program" and "boost up the program instead of going around and saying, like, what a pain it is or how much extra work it is" (Participant P2).

Participants shared that administration was most effectively supportive if they understood what MindUP is, and the benefits of it. Participants expressed that it was important that "everybody understands the motivation behind [MindUP] and maybe even the science behind it so that they can fully support the educators that are implementing it," (Participant P4) as well as "know what should be happening in classrooms" (Participant T1).

The support of the principal was mentioned by all of the participants who are educators. One participant summarized how a principal can create a supportive school culture:

> "I think when you have a principal that is aware of MindUP and also believes in it, and supports it. … they understand why you're choosing to use certain language with the kids or why you have certain parts of your day structured the way that they are. So having that principal, knowing they've got my back and they understand it and this is why I choose to have this sort of structure in my room. When you have a Principal who understands the reason behind why we have MindUP in those early years, then they can see that it is much more of an investment in those kids. And it's not just an investment for this year when they're in JK or SK. It's an investment for them all the way through, until they're adults."

Most participants have suggested that when administration supports educators in implementation by understanding the program and the benefits, they are given the time, freedom and support to implement MindUP effectively.

Six participants discussed that creating a classroom culture (that welcomes the MindUP curriculum) is also dependent on the other educator in the classroom. Participant T2 shared that when it was their first year being a MindUP implementer, they were reliant on an Early Childhood Educator (ECE) who had implemented MindUP in previous years. The participant shared that the ECE made them "feel comfortable" because they would step in if they missed something and provide guidance. Participant P2 touched on the fact that having a partner in the classroom can be extremely helpful, but other times it can hinder implementation. For example,

Participant T2 said:

> "So if I have an ECE who's yelling at the kids or is trying to discipline them differently, [and] then my approach is we need to be mindful, we need to take a brain break, we need to be in control of ourselves, well, that's sending the kids two totally different messages... I think that's a huge challenge."

Generally, having consistent teaching practices seemed to help facilitate MindUP properly.

Overall, participants agreed that when administration and other implementers have similar goals regarding classroom culture, then implementation is more likely to run smoothly. Furthermore, educators discussed that parents were generally on board with the program. Participant T1 said that "parent involvement is important," because

> "that parent component I find has been really helpful because you see a difference in the parents that aren't as involved or invested in it compared to the ones that are in how much more those kids, that have parent involvement come along in the program."

Participants who were educators all touched on parental involvement, some sharing that parents "were not an issue" (Participant T3 and T4), while others, like Participant T1, said they were very important for the children's learning. Participant P3 said that during the early stages of implementation, parents would sit-in during MindUP lessons, which "helped tremendously with buy-in from parents." One participant said that it was the "cutest thing" that one of the parents told her that her child asked for a chime for her birthday, which is used during brain breaks, and would do brain breaks with her stuffed animals (Participant T2). Lastly, two participants, when asked about what motivated them to become District Trainers, shared that Western University's involvement and piloting of MindUP alongside their school board encouraged them to become District Trainers.

3.1.3 Relationships

The subtheme relationships indicated that forming trusting relationships with other implementers affects implementation. Forming positive relationships amongst implementers could create a team-like attitude, where members of the team have a shared vision and safely share resources with one another, which can contribute to effective implementation (Damschroder et al., 2009). The importance of trust, asking questions, and receiving advice and feedback emerged from the interviews.

Participants discussed that creating trusting relationships with other implementers is important for the sharing of knowledge and resources. This subtheme bleeds into the two previous ones, since positive relationships appear to be important for creating a supportive school culture, as well as in sharing resources, since "[other implementers] have to trust that [the district trainer] knows what [they] are talking about" (Participant P3). This participant further explained that implementers "have to have trust in just the relationship, so there is not going to be judgment" if they are asking for advice regarding doing something correctly or trying something new. Further, building rapport between district trainers and implementers to create a sense of safety to ask questions and share information, was also noted by participants. Participant P2 highlighted this idea by sharing:

> "I feel like having that relationship with a teacher or that teacher, knowing that she can reach out or he can reach out to other people to support him with this program is, like, it's probably 99 percent of making things work for MindUP."

Furthermore, Participant P2 commented on the significance of teamwork, where they said that "if the team works well together, like if the ECE and the teacher work well together, that's definitely helpful." Three other participants discussed how one ECE and teacher team

worked very well together to implement MindUP, where they shared that the support they provided to one another appeared to help them implement MindUP with high quality.

Lastly, no participants discussed being pressured to meet deadlines or engage in any sort of evaluations. Receiving feedback on implementation was discussed by participants, where some participants indicated that other implementers would ask them to provide feedback. When asked directly if they thought feedback would be helpful, some participants believed that having a trusting relationship with a knowledgeable district trainer would warrant a positive interaction regarding feedback where they could grow as implementers, while others shared that feedback could be taken poorly if the educator is not open to criticism.

3.2 Individual Factors

Individual factors include personal characteristics, attitudes, and beliefs of implementers. Discussing individual factors of implementers is important; Damschroder et al. (2009) emphasized the importance of engaging the appropriate individuals for the high-quality implementation of a program. Jennings & Greenberg (2009) explored different contributing factors of educators, and their effects on student and classroom outcomes, which they highlight is necessary due to the limited research in the area. Various individual factors that could affect motivation of implementers were discussed by participants. The three subthemes below are interconnected, being open-minded and willing to try new things can lead an educator to develop buy-in of the program, which can cause them to be open to integrating MindUP into the school day, since they do not view it as an add-on.

3.2.1 Mindset

Mindset is the personal internal characteristics of an individual, such as being open-minded, patient, and flexible. One could say that mindset is similar to personal attributes.

Personal attributes could affect an individual's inclination to identify with the program and develop buy-in (discussed in the next subtheme) (Damschroder et al., 2009). For example, personal characteristics such as agreeableness have been associated with positive implementation outcomes, and cynicism has been associated with negative implementation outcomes (Lochman et al., 2008).

The importance of open-mindedness was prominent with almost all participants when asked about which individual factors contribute to successful implementation. A participant stressed the need for open-mindedness to understand that the knowledge gained with MindUP is life-long (Participant T4). Participants suggested that a mindset of open-mindedness was important to help internalize the philosophy of MindUP. A professional support staff offered their perspective by expressing:

> [Implementers] need to be in an open mindset. Maybe not desperate, but you just need to be open to the possibilities and be willing to step out of your comfort zone a little bit, because for a lot of people the core practice can be a little 'Hokey pokey' if you're not accustomed to that type of quiet meditation. So, I would just say open minds" (Participant P1).

District Trainers often discussed that a willingness to try new things was central in high-quality MindUP implementation. They reported that being open to a new way of thinking about teaching was critical since MindUP is often something that educators have not done before.

Being a life-long learner while being open to changing the way things have been done before was expressed as significant by participants. Participant P2 reflected that it is helpful for implementers to adopt the perspective: "MindUP is a new project that I want to take on, maybe all these concepts are totally new to me, but I'm willing to try them and I'm willing to see if this

is something that might be able to work." Resistance to internalizing the MindUP philosophy was often viewed as a barrier to successful MindUP implementation.

Participants discussed other ways mindset could be a barrier to MindUP implementation, where, for example, one participant shared that some implementers surprisingly do not like children (Participant P2). Another factor was being patient, as well as understanding children and the way they think. Lastly, Participant P2 said that to be the best MindUP implementer an educator can be, they must have a "good relationship with themselves," like "taking care of themselves." This participant was touching on the idea that one cannot teach concepts that are incongruent with their current way of being.

3.2.2 Buy-In

Buy-in is a colloquial term that explains an individual's perception of willingness and acceptance towards a new way of being, where there is a belief that this new way of being will have positive results (Cavanagh et al., 2016). The attitudes towards a program can have effects on the outcome (Domitrovich et al., 2010). Six implementers highlighted the importance of believing in and supporting the program, since having buy-in often results in implementers actively supporting and participating in the intervention. A participant summarized this notion by sharing that they "think there has to be buy-in from the teacher. [The teacher has] to have a belief in the good of the program in order to invest the time and effort into it" (Participant P3).

When district trainers were asked about what advice they would give the next generation of implementers, three implementers highlighted the importance of believing in the program and its benefits. Participant T2 explained that believing in the benefits for the students, even if those benefits are not shown or perceived by the educator is crucial, by sharing:

> "I would say believe in it, believe that it will work because it does… For [some students], that investment that you have put in is going to be shown… [But] even if you feel as though it's not being shown in your class, believe in it and know that it could be in the future where it's benefiting them because they do need it. They need that help."

The importance of having a belief that MindUP does benefit all students by teaching them social-emotional skills, even if those skills are not being perceived by the teacher, was echoed by other participants.

Several participants shared that when implementers have similar values to MindUP, such as having their own mindfulness practice and understanding its benefits, it makes implementing MindUP easier. Participant P2 conceptualized this point well, by sharing: "I think if you really love something and believe in it, it's easier to teach it." Participant P2 further shared that if an implementer is "a little bit more wound up and doesn't have that ability to go inward," then there is "a whole other level of learning that needs to happen." Participants expressed that once they understood the benefits of mindfulness personally, then their personal values seemed to align with MindUP.

Furthermore, participants expressed an interest in implementing an SEL program when it "lined up with [their] own teaching philosophy" (Participant T1). Another teacher shared her interest in child psychology, and said that MindUP "fulfills that want that I have of learning more about child psychology because I see how these strategies and practices are all part of their development in a way" (Participant T2). Overall, participants indicated that having buy-in, and similar values to MindUP made implementation easier.

3.2.3 Open to Integrating MindUP into the School Day

An important aspect of MindUP is the need to incorporate it into the school day, to help develop and consolidate the social and emotional skills taught during the MindUP lesson (Schonert-Reichl et al., 2015). Adding an extra responsibility like MindUP to an already stressful job seemed to be an overwhelming concept for some implementers. This view was most often preceded with the idea that MindUP should not be viewed as an add-on, but a template for all activities. Participants shared that it should not be viewed as "one more thing to do" (Participant P2), but an "amazing foundation for a classroom" (Participant T3). Almost all participants discussed the significance of MindUP being a helpful tool once it is incorporated into everyday classroom activities. Participant T2 echoed this concept by sharing:

> "It just becomes part of your culture in the class and it even becomes part of the vocabulary that the kids are using as well, … But also, I guess I would add it's not just like you're teaching one lesson on a Monday or Tuesday and then MindUP is gone. There's opportunities for that to become part of the day every day."

The participants stressed that MindUP can be "intertwined in so many different parts of the day" (Participant P2), where the "whole curriculum kind of falls into it" (Participant T4). They enthusiastically shared different ways they integrated it, such as math, language and science. A couple of participants shared that students would start using MindUP language amongst themselves to help each other self-regulate. Some participants shared that they would do a 'brain break' in the morning, which resulted in students being "able to let go of their morning and begin their day over again. And for [the educators], that was huge" (Participant T3).

Participants in the school support group who provide direct support to students shared that they used MindUP concepts with students they would see, and build on the skills they had learned in class. A participant shared that they have a "facility dog" that would accompany the

participant into classrooms, and the dog was used as an aid to teach MindUP skills, such as breathing. Other implementers discussed other ways they would adapt MindUP outside of the specific MindUP curriculum, such mindfully eating and using the senses. Participants also shared that they would often go outside, and connect MindUP skills, such as the senses, to religion, since they are a Catholic school board. Participant P4 shared that mindfulness, religion and the outdoors "all interconnect."

Lastly, participants discussed their motivation to support MindUP to the universal design of the MindUP program. Many participants shared that implementers should be aware that all students will benefit from the concepts and skills learned, even if they do not have disruptive behaviours/ are not perceived as needing to learn social-emotional skills. Participant P1 emphasized this by sharing that "if [implementers are administrating MindUP] for that one student who seems to have maybe more of a challenge keeping their emotions in check, [they need to understand that] all the kids would benefit from that same practice."

Generally, participants believed that having that willingness to learn and try new things and have compatible values with MindUP makes it easy to successfully integrate MindUP concepts into the school curriculum.

3.3 Outcomes

Outcomes are the results or effects of the MindUP program. The outcomes of MindUP, or lack thereof, affected implementers' attitudes of MindUP and their willingness to support effective implementation. It was significant for implementers to notice a difference in their classrooms after the time and effort they contributed to the implementation of MindUP. For example, Participant T1 discussed their frustration in the lack of intended perceived results, and said it was challenging to see "a few children that didn't really come as far as I thought they

would come with it… [but] these kids, the ones that had a difficult time with it, are the ones that needed it so much more."

3.3.1 Student Engagement

Student engagement was conceptualized as the degree of student participation or engagement in MindUP. The degree of student participation appeared to affect implementers' ability to implement MindUP. Participants illustrated this point by discussing that a lack of student determination to learn and listen to MindUP lessons was a challenge. A teacher shared that "this is all very new and very different to students," so students would often reject the idea to calm down and focus on one's breathe, since they had "rarely done that before" (Participant T2). Participant P2 further expressed this view, by explaining that some educators were unable to implement MindUP due to students who could not engage in lessons due to behavioural issues, and were only able to implement MindUP when support for those students increased.

On the other hand, Participant T2 said that having an eager classroom, who were "open and willing" to learn made it "easier for me to implement" since "there were less factors that I had to fight against in order for them to be willing to do the brain breaks" or engage in using MindUP language in the classroom. Having students motivated to participate and contribute with their own ideas to expand MindUP skills was a motivating factor for some participants. Other participants discussed how students would use MindUP vocabulary amongst themselves, sometimes to support themselves, other students, or their own teacher to self-regulate. Generally, the participants' perceived student participation in MindUP influenced implementation.

3.3.2 Evidence of Successful Outcomes

Implementers of MindUP perceiving a noticeable difference in social-emotional skills within their classroom, could be defined as evidence of success of the program. Participants

emphasized that observing the outcomes of MindUP first hand was a "huge" (Participant T3) motivating factor. Noticing the resulting outcomes of MindUP appeared to motivate implementers to continue integrating the concepts into everyday classroom culture. All of the educators interviewed highlighted that MindUP noticeably benefited children's self and emotion regulation. They shared that MindUP "fits so well" (Participant T1) with kindergarten, since children of that age often don't know how to "cope with their big emotions" (Participant T1). Participant T1 further explained that kids embraced the calming area, as well as calming themselves down with brain breaks.

The benefits of these self-regulation skills gained were evident in the realm of classroom control. Participant T2 explained that MindUP helped them teach by saying:

> "MindUP becomes your classroom management, like MindUP is how you gain, I don't want to say control of the kids, but in a sense it's how you gain that control of them, but it's also the respect that they show towards you. And it's how you navigate from one thing to the next in the classroom. And when the class is completely out of control, that's when you use a brain break."

When implementers would see these "positive effects" (Participant P2) in other classrooms, or in their own classroom, they appeared to be encouraged to continue implementing MindUP and incorporating it throughout the school day. Participant T4 emphasized that their "biggest motivator" was seeing first-hand "the difference [MindUP] made in [the] classroom and to [their] students." Another perceived benefit that stemmed from classroom management was that the educator suggested that they were "spending less time on intervening and less time on dealing with different emotions that are happening and able to actually focus on the children and

their learning" (Participant P4). Noticing the benefits for children and the classroom environment was a consistent facilitating factor of supporting MindUP throughout the interviews

Furthermore, most participants commented on the personal benefits they gained from teaching and internalizing MindUP skills. They shared that what motived them to support MindUP were the benefits of MindUP skills, such as mindfulness, they saw in their own lives. When asking Participant P3 for advice they would like to share with future implementers, they further emphasized that implementers should "really immerse [themselves] in [MindUP] because the benefits that they will see will be huge in their classroom, and personal [life]." Interestingly, participants who had been familiar with mindfulness, as well as participants who had just learned these skills, shared this sentiment.

3.4 Developing Competence

The fourth theme focuses on the importance of developing a comprehension of the goals of MindUP and the skills taught to reach those goals. Participants conveyed that implementation was easier when the implementers developed competence of the MindUP content. Damschroder et al. (2009) suggest that "skill in using the intervention is a primarily cognitive function that relies on adequate how-to knowledge and knowledge of underlying principles or rationale for adopting the intervention" (p.9).

3.4.1 Understanding 'Why'

The subtheme *Understanding 'Why'* encompasses the idea brought forth by participants that understanding 'why' the specific MindUP skills and lessons are taught and how they translate into the classroom, helped them understand/conceptualize MindUP better. Participants discussed that developing their understanding of MindUP and its evidence-based concepts motivated them to support MindUP implementation. Most participants discussed that "you need

to understand why you're doing [MindUP]. Why are the kids learning this? … And once you understand the why, then you can dive in and implement and see it [in action]" (Participant P1). They shared that once they learned the concepts of MindUP, they better understood disruptive behaviour, they were able to respond to it more effectively. District Trainers discussed how learning the concepts of MindUP helped them understand that everyone is capable of change, such as changing the disruptive behaviours, and how to promote this change. Participant P1 further explained how change is possible through repetition:

> "I really found the part that resonated with me in the MindUP program where the neuro pathways, the plasticity. That was the big *aha moment* for me. That you can train your brain to do something differently than you have been. You can form a new path. You just have to keep doing it. I think that's a really that was a really big moment for me, because we often think that these kids and ourselves really can't do it… But [they] really can."

Participants often brought up that the evidence-based nature of MindUP motivated them to support it.

Due to a training in trauma-informed practices, district trainers, as well as implementers they support, incorporated the trauma-informed care model with MindUP. They shared the trauma-informed care model helped them understand MindUP better, which encouraged them to implement it. Participant P3 added that "a lot of the feedback that I had from [implementers] was, 'once I was able to make that connection, it was like an *aha moment* for me about how kids learn and what can impact their readiness to actually learn.'" Participants communicated that MindUP and the trauma-informed care model helped them understand children's behaviours, as well as how trauma affects learning.

Additionally, most participants expressed the opinion that even if an implementer had no previous MindUP based knowledge, adding the trauma-informed lens to MindUP helped with understanding the MindUP concepts. Participant T2 discussed this notion, by expressing: "So with the trauma informed, I felt like that was a whole other part… I never understood the why. Like, why are we doing this? Why is it important? Why does the child behave this way? Why do we need to do it? MindUP… is how we do it, and the trauma informed is to why we're doing it and why it's important and why it needs to be implemented and why we're doing it at that age."

Participants shared that it is important to get this "background knowledge" because it aids in the understanding that these MindUP strategies work, and that "they weren't just pulled out of the air somewhere" (Participant P3). An educator discussed her worry that she may not be a good fit with MindUP because she doesn't have a "Zen personality," but their concerns quickly evaporated when they realized that "you learn with the program and you learn along with the kids" (Participant T3). Overall, most participants expressed that once they understood why they were implementing MindUP and the reasoning behind its concepts, coupled with education in the trauma-informed care model, they were encouraged to implement MindUP.

3.4.2 Experience with MindUP Affects Implementation

The experienced implementers (district trainers), who had a solid grasp of the MindUP lessons and concepts, noticed that they were more motivated to implement MindUP effectively than newer implementers. A barrier of implementation of MindUP discussed by District Trainers, seemed to be a lack of competence.

The District Trainers shared that at the beginning of implementing MindUP, they were overwhelmed, and that it did not "click… right away" (Participant T4). They discussed how

implementers could “feel overwhelmed with responsibilities and don’t know how to add one more thing to their plate,” (Participant P3) as well as the manual having a lot of content in it, and “not really knowing where to start” (Participant T2). A District Trainer who was supporting an overwhelmed implementer shared that they had trouble “wrapping [their] head around” doing brain breaks every day, but when the implementer saw that MindUP was not “overly complicated,” they “were more willing to implement it” (Participant P2).

The idea that implementation became easier and more enjoyable over time was a common one. They shared that after a couple of trainings attended, even if the trainings are similar, their competence increased. Participants also discussed that some newer implementers would notice District Trainers implementing MindUP outside the classroom, and “ ‘automatically go wow, I want to do that.’ Like yeah, but that took them three years to get there, four years” (Participant P1). Participant T2 shared:

> “I’m excited to go back and teach again… because I know what I did my first time and now I can build off of that… I'm more comfortable with the content, so I'm not just looking out of the manual the whole time.”

A significant expectation of MindUP, as well as a motivating factor (discussed above), was incorporating MindUP into the school day, which was perceived as difficult for implementers unfamiliar with MindUP.

The importance of adapting MindUP to fit student needs was discussed but seemed to be possible once a comprehension of MindUP was gained. Participants expressed that “once you’ve done [MindUP] a few times, you start to see where it fits” (Participant P1). A District Trainer perfectly summed up the opinions of their colleagues, by sharing:

> "The first year I did it, I kind of followed it to how it was laid out in the manual. And then the second year I did it, I kind of knew the lessons and kind of adapted it to where I felt it would fit with what I was doing. But I think it can be adapted once you learn it, to incorporate it throughout the curriculum" (Participant T1).

Participants suggested that adaptability of MindUP into the school day, a crucial component of the MindUP curriculum, was more likely to occur once implementers had implemented it more than once, or had had experience with it in the past.

4. Discussion

The purpose of this study was to gain a better understanding of what influences the effectiveness of implementing MindUP, a social and emotional learning (SEL) program. Past research suggests that exploring what factors aid in implementing a program is necessary to ensure high quality implementation, since high quality implementation of a program usually leads to its intended results. Eight participants were interviewed, who trained and assisted implementers in MindUP. They were asked questions that focused on what new implementers need to be a part of high-quality implementation. Results suggest four primary themes that are important to successful implementers of MindUP: systemic factors, individual factors, outcomes, and developing competence. The discussion focuses on the content of these themes through the lens of the Self-Determination Theory (SDT). This section also explores this study's limitations, implications, and areas of future research.

4.1 Systemic Factors

Results indicated that implementation of an SEL program is affected by systemic factors, such as staff relationships, available resources, and school culture. These results were expected, as most past implementation literature suggests, an environment that supports the needs of the

implementer can promote successful implementation (Domitrovich et al., 2010). Results suggest that having a supportive school culture where administration and other staff are on board with MindUP, coupled with developing positive, trusting relationships with other implementers so resources can be shared and questions can be answered, can create an environment where implementers are equipped to engage in high quality implementation of MindUP. These results are congruent with the SDT because these social-contextual events where implementers feel that they can safely communicate, collaborate, and ask for feedback, can foster feelings of competence, relatedness, and autonomy, which are core psychological needs that foster intrinsic motivation (Ryan & Deci, 2000).

4.1.1. Resources

A key resource that emerged from the results is the need for a good support system, which aligns with past literature that shows that positive perceptions of training and coaching (district training) are often associated with high implementation quality (Ransford et al., 2009). Results showed that new implementers were seen to struggle with the overwhelming nature of MindUP. Internalization of a new program is more likely to occur when the process of implementing a new program involves a learning and implementation structure (Assor et al., 2009; Ryan & Deci, 2000). As such, past literature suggests that a formalized meeting every two to three weeks with a coach, or district trainer, is helpful to support their on-going learning (Assor et al., 2009). Additionally, to facilitate continual learning, goals, moral support and resources that support teachers' psychological needs during implementation, formal meetings with administrative staff such as the principal are beneficial (Assor et al., 2009). Introducing a similar framework within the MindUP context could help first time implementers feel less overwhelmed.

Furthermore, the results indicated that there were mixed perceptions regarding district trainers' roles. There was an understanding across all participants that they lead the initial training session and a booster session midway through the year. But, the degree to how much they support other implementers varied greatly. For the development of a strong support system, developing a concrete schedule of regular meetings with implementers and district trainers could benefit implementers. Another recommendation is having a coach or district trainer in each school, that can help model and explain the program (Domitrovich et al., 2008). Having a district trainer in each school could have a significant impact on the perceived available supports and the quality of implementation. Therefore, developing concrete expectations for district trainers' level of support throughout the school year could be beneficial, and/or having a district trainer in each school.

SDT discusses the need for positive feedback to facilitate motivation (Ryan & Deci 2000). There were mixed results on feedback, where feedback was understood as the feedback implementers would receive on their MindUP implementation from other implementers or district trainers. Some participants said that feedback was a great idea and necessary, while others said that it depends on the relationship between the person asking and the person giving feedback, because it could be seen as unwelcome. SDT supports this notion; if there isn't a sense of autonomy and self-direction when receiving feedback, it can affect motivation (Deci & Ryan, 1985). It appears that feedback from a trusted friendly source is important for implementers. This may be due to the fact that MindUP is a complex program, where positive performance feedback could facilitate feelings of self-efficacy and/or competence. Future studies could explore the effects of positive performance feedback on MindUP implementers.

Results showed that participants perceived sharing knowledge and resources between implementers as important. The online portal that hosts MindUP resources was mentioned, but less than the need for sharing resources and information between implementers in the school. Results showed that observing and collaborating with other implementers in their schools made it easier for implementation. A need in assistance for developing competence was an expected result, since it is understood throughout the implementation literature that having good supports who provide resources builds competence (Assort et al., 2009; Domitrovich et al., 2008). SDT suggests that relatedness and competence are psychological needs that foster motivation, so an environment that could foster and develop competence through shared resources, and relatedness through trusting relationships, could be a good environment for implementing an SEL program (Ryan & Deci, 2000).

4.1.2 Relationships

The Relationship subtheme and Resource subtheme are interdependent, since results outlined that positive relationships amongst implementers fosters resource and knowledge sharing, as well as positive performance feedback. This pattern of results is consistent with past literature, since Damschroder (2009) suggests that the relationships between individual implementers can foster a sense of teamwork or community, that could enhance implementation quality. We can also make sense of this concept through the SDT lens, since Deci & Ryan (2000) state that individuals have a need for belongingness, or relatedness, which provides a foundation for motivation to do a new behaviour, which can further foster more effective knowledge sharing and a more cohesive social organization (Deci & Ryan 2000). For MindUP to be implemented effectively, there is a need for a strong sense of supportive and trusting relationship amongst staff, since it can positively influence implementation.

4.1.3 School Culture

The school culture, which encompasses other people associated with the school or classroom, including other educators, administration, principal, and parents, seemed to have an effect on district trainers' perceptions on MindUP implement effectiveness. Results of this research provide supporting evidence of the importance of the school culture, with encompasses other school staff explicitly supporting MindUP and its philosophy. Many participants expressed the challenge of having a partner in the classroom whose teaching style was incongruent with MindUP, while others expressed the gratitude they felt towards other educators in their classroom that supported them with MindUP lessons. Since participants viewed MindUP as a framework for classroom instruction, having someone else in the classroom with incongruent teaching style could potentially thwart SEL encouraged by MindUP. Along these lines, participants seemed to suggest that students internalize social emotional skills when all of the adults they interact with are on board, including parents, principals, administration, and other school staff. People are more likely to engage in activities when their social group value it, especially if they feel competent in those activities (Deci & Ryan, 2000). The results implied that there is great benefit of adopting MindUP school wide and incorporating it into school culture.

Having an administration, including the principal, that supports MindUP was important to participants. Many participants highlighted the need for administration to understand the logistics and importance of MindUP, as well as provide time and space for the training in, and preparation and implementation of, MindUP. Past literature supports this finding, since overall school and principal involvement in a new program has been shown to positively affect implementation (Kam et al., 2003; Ringwalt et al., 2003). As SDT posits, autonomy is important for being motivated to do a new behaviour, and that social contexts that feel controlling and have

excessive demands undermine motivation (Ryan & Deci, 2000). Results therefore suggest that schools that are implementing MindUP should take into consideration the need for giving teachers adequate autonomy for attending trainings, prepping/planning SEL program lessons, and taking time out of the school day to teach the SEL program lesson.

Interestingly, no issues of an overly controlling administration or principal were mentioned. It was unclear the amount of pressure administration put on implementers to implement all the lessons. Participants noted Western University's positive role in the implementation process, since Western University partnered with the school board to support and evaluate MindUP implementation. Past research shows that positive implementation outcomes often occur with the presence of a community-university partnership (Spoth et al, 2007). Continuing the university-school board partnership could influence the sustainability of the MindUP program. Another positive influence on implementation was that one school board member actively supported and encouraged implementation of MindUP. There was no mention during interviews of imposed negative consequences by the school board or university if implementers did not fully implement MindUP as intended. These external pressures such as deadlines and imposed goals are external motivators that diminish motivation, and were not present in the perceptions shared by participants (Ryan & Deci, 2000). Results could indicate that this cultivated autonomous climate around MindUP supported implementation.

4.2 Individual Factors

Individual factors influencing implementation such as personal attributes, values, and willingness to fully adopt a new way of being in the classroom, were prominent in the results. Overall, these results may explain what personal characteristics or beliefs facilitate internalization of the program and in turn facilitate motivation. Being flexible and having a

willingness to learn and an open-minded mindset, could create the conditions for an implementer to notice the value and significance of MindUP. Valuing a new behaviour because of its inherent value can lead one to identity with it and internalize it (Deci & Ryan, 2000). Internalization, such as developing similar beliefs and values as MindUP, could lead implementers to enjoy implementing MindUP for its own inherent satisfaction, as SDT posits is necessary for intrinsic motivation to develop (Ryan & Deci 2000). This could lead to the goal of integrating the MindUP curriculum into other daily school activities, which is an aspect of high-quality implementation. Therefore, results could suggest that these specific individual factors should be encouraged in new implementers, since mindset, buy in, and openness to integrating MindUP in the classroom, could affect implementation quality.

4.2.1 Mindset

As the results indicated, having an open-minded, flexible mindset, where an implementer was willing to try new things, was associated with effective MindUP implementation. Being patient and having experience with children were also discussed as important personal attributes of implementers. Once these aspects are adopted, it is likely that implementers see the program as non-threatening and helpful, which could lead to intrinsic motivation (Deci & Ryan 2000). Rohrbach et al. (1993) found that one of the most important factors for high implementation quality was acceptance of the program, where acceptance varied due to implementers' needs and priorities. An implementer could have more success implementing MindUP if they develop positive personal beliefs and attitudes towards MindUP and accept it as a valuable program.

Only one participant brought up the aspect of burnout. The participant shared another implementer was struggling with aspects of burnout, and that they had to actively assist them in implementation for six weeks. Since stress and burnout have been widely documented to reduce

the quality of job performance, this was an expected factor to be a challenge for implementation (Domitrovich et al., 2008). It is interesting but not surprising that only one participant discussed burnout, since the participants interviewed were advocates and strong supporters of MindUP, and it would be unlikely for an individual experiencing burnout to accept such a position. Since teaching is a stressful job, the chances of some implementers struggling with burnout are high (Oberle, & Schonert-Reichl, 2016). District Trainers may have not been aware of personal issues their colleagues faced or did not want to share private information.

4.2.2 Buy-In

When an individual has buy-in, they have positive attitudes and beliefs towards a new way of being, where there is a perception that this new way of being will have positive results (Cavanagh et al., 2016). Results indicated that when an implementer has belief in the program and similar values of the program, like having their own mindfulness practice, they may be more inclined to have buy-in, which could result in MindUP being implemented well. As participants expressed, it is easier to teach something you love, and if it aligns with your own teaching philosophy. Motivation to implement a program could be decreased if an implementer does not value it, since amotivation results from not valuing an activity (Ryan et al., 1995). Further, an individual is more likely to internalize new ideas when these ideas are perceived to reflect the implementers' authentic personal identity and values, which could increase motivation (Assort et al., 2009; Ryan & Deci, 2000). Damschroder et al. (2009) also suggest that the attitudes and beliefs towards an intervention affect implementation quality. An implementation structure that assists teachers in viewing MindUP as supportive of their psychological needs could facilitate implementers internalizing MindUP's values and philosophy, in hopes of valuing it and being determined to implement it well.

4.2.3 Open to Integrating MindUP into the School Day

A part of implementing MindUP as intended is integrating MindUP skills into the school day, outside of the MindUP lesson, so it would be of value if implementers were open to it. Participants often enthusiastically expressed the benefits of incorporating the MindUP curriculum into the school day but shared that some educators viewed it as an add-on; just one more responsibility to an already overworked educator. Past literature highlights that many educators believe that they do not have enough time to incorporate an SEL program into the school day (Dowling & Barry, 2020). District trainers discussed that it is beneficial when implementers perceive MindUP as a foundation for the classroom, rather than an add-on.

District trainers, experts in MindUP, often discussed how implementers expand MindUP lessons and skills into other classroom instruction. They also mentioned that educators would notice other implementers integrating MindUP curriculum into the school day, and adopt similar activities in their classroom. Adaptation of interventions help adjust the intervention to make it a better fit for the context it is being implemented in, which can help decrease resistance by those involved (Damschroder et al., 2009). Being open and willing to integrate and adapt MindUP into the school day increases the chances of the intended outcomes of the SEL program, because it is being implemented as intended. Once implementers start to integrate MindUP into the school day, they notice the outcomes of teaching social emotional skills such better classroom behaviour, which helps implementers understand how helpful MindUP can be to them and their students. further discussion on this topic is explored in the next theme, outcomes.

4.3 Outcomes

The third theme, Outcomes, encompasses the responses to, and results or effects of, MindUP. Mostly student, but also implementer outcomes were discussed as a component

towards supporting the MindUP program. Results showed that behaviour problems were challenges to implementation. On the other hand, students engaging in MindUP, effectively using MindUP skills, and having better classroom conduct, were viewed as facilitators to implementation. An external event, such as perceived success of an SEL program can be an indicator of how competent one is, which could affect implementer motivation to implement well (Deci & Ryan, 1985).

4.3.1 Student Engagement

The subtheme student engagement encompasses student misconduct and student participation in MindUP lessons. Results showed that implementers may find it more enjoyable to implement MindUP when students would actively participate in it. Participants spoke eagerly about how students engaged in the MindUP curriculum, gave suggestions regarding implementing MindUP skills outside the classroom, and supported other students or other teachers to use MindUP skills to emotionally regulate. There has been research linking teacher motivation to teach with student motivation, where studies have shown that there is a positive relationship between perceived student determination and teacher determination to teach (Han & Yin 2016; Pelletier et al., 2002). Implementing MindUP in classrooms where students are eager to learn MindUP skills could aid in the success of the intervention.

On the other hand, disruptive behaviour and low student participation appeared to be a challenge for implementers. Participants shared that some students often behaved in a disruptive manor during MindUP lessons, which impeded on their ability to teach during the lesson. This was an expected result, since SEL programs are often implemented to help decrease disruptive behaviours and teach self-regulation (Duncan et al., 2017). Nonetheless, student misbehavior can contribute towards teachers stress and daily feelings of frustration (Richards, 2012). Professional

burnout can encompass having negative feelings towards students, and if an educator perceives that they are not contributing to student advancement, could result from students misbehaving and resisting an intervention (Domitrovich et al., 2008). This past literature supports the current findings, which suggest that student misbehavior has an influence on the effectiveness of program implementation.

4.3.2 Evidence of Successful Outcomes

Evidence of successful outcomes occurs when an implementer perceives the intended results of the program. Participants discussed how motivating it was for them to see the differences MindUP made in their students' abilities to regulate themselves and their emotions. By seeing these benefits firs- hand, implementers were amazed at the difference MindUP made in their classrooms. They felt that they had better classroom control, students seemed to be more receptive to learning and listening and could see the social emotional growth of students.

Many participants suggested that that an implementer needs to see the benefits of MindUP in action for them to be inclined to implement it well. This could develop trust in the program, where it can be understood as supporting an educator's needs, which may foster motivation to implement well (Deci & Ryan, 2000). An implementer perceiving success of a program and attributing student improvement to the intervention, influences implementer motivation and perceptions of competence, which supports high quality implementation (Han & Wiess, 2005). The limitation to this finding is that an educator first needs to successfully implement an intervention for the intended results to be perceived. A possible solution is inviting experienced implementers to either discuss or demonstrate their own experiences of successful outcomes during trainings or interactions with new implementers.

One of the factors that participants said motivated them to implement MindUP was an improvement of classroom management and students' self and emotion regulation skills. Noticing an improvement in classroom management and students' self and emotion regulation skills could be an indicator to implementers that they successfully implemented the MindUP program. The results are consistent with past literature, where Rohrbach et al. (1993) showed that high quality implementation was positively associated with immediate intended intervention outcomes. This type of observed positive response to MindUP could foster perceived competence, which often enhances motivation, specifically if the implementer believes that they are responsible for the improvements they observe (Ryan & Deci, 2000). Improved classroom management could also foster educator autonomy, since their daily tasks and lessons may be less influenced by disruptive behaviours. Improved classroom management may have been prevalent across interviews because classroom management issues are one of the most commonly cited issues for teachers, where low perceived feelings of autonomy can lead to stress and burnout (Schonert-Reichl, 2017). Feelings of making a difference in their students' lives also seemed to be rewarding for implementers, which could have facilitated an aligning in values and in turn intrinsic motivation (Deci & Ryan 2000). Overall, this suggests that perceptions of successful intervention outcomes through better classroom management and student self and emotion regulation skills could be associated with motivation to implement MindUP with high quality.

Participants noticed personal benefits after learning MindUP skills, which they said helped them believe in the effectiveness of MindUP. This could help teachers perceive the program as non-threatening and supportive of their basic needs (Assor et al., 2009). Motivation to do a behaviour is influenced by identification, meaning consciously valuing an activity so that it is perceived as personally significant (Ryan & Deci, 2000). When a person identifies with the

value of an activity, such as a SEL program, they participate in the activity with a greater sense of autonomy since they do not feel forced to do the behaviour – they are doing it because they find it personally of value (Deci & Ryan, 2008). This finding may be explained by the idea that once educators notice the benefits of integrating MindUP skills into their own lives, they could understand its benefits for others too, which could motivate them to teaching their students MindUP skills. The potential connection between noticing personal benefits of MindUP skills and motivation to effectively teach those skills to students can be taken advantage of during MindUP trainings, to help facilitate buy-in and effective implementation.

4.4 Developing Competence

This theme encompasses the idea that developing a comprehensive understanding of the MindUP curriculum helps implementers implement MindUP. Results suggest that learning and comprehending the philosophy, skills, and purpose of MindUP, helped educators implement it.

4.4.1 Understanding why

When implementers gained an understanding, with the help of the trauma-informed framework, why certain lessons were taught, what skills were taught, and why they were taught, implementers seemed to be more motivated to implement MindUP well, because they could see the value in putting in the time and effort to implement MindUP. Results highlighted the importance of integrating a trauma-informed framework with MindUP; almost all participants said that it was very beneficial to have a trauma-informed framework coupled with MindUP because it helped them better understand their students, the evidence-based practices of MindUP, and how MindUP can help students who experienced trauma. These results are consistent with the SDT lens, since internalization of a new activity can only occur when the acceptance of this new activity is due to the true understanding of its value (Assor et al., 2009). Stone et al. (2009)

suggest that humans have an innate propensity to grow and pursue goals and will participate and commit to uninteresting activities if their meaning and value is comprehended. Implementation based literature supports the SDT lens in this context, since it has been shown that intervention specific efficacy, such as an understanding of the intervention's theory and lessons, has been shown to be associated with better implementation quality (Rohrbach et al., 1993). With a thorough understanding of why implementers are doing what they are doing, implementers could be more inclined to implement MindUP with high quality. The trauma-informed framework appeared to facilitate a better understanding of the MindUP curriculum and seems to be associated with positively influencing implementation.

4.4.2 Experience with MindUP

Comments provided by the participants indicated that they perceived that most first year implementers were overwhelmed with the program, that implementation was easier over time, and that adaptability of MindUP was easier the longer the educator implemented it. Several participants explained that through personal experience and observation, first time implementers were overwhelmed with the MindUP curriculum. The importance of effective training in SEL programs has been widely documented, since the training is where implementers gain the knowledge needed to implement, such as understanding the theory and philosophy of the SEL program (Reyes et al., 2012).

Additionally, the training implementers undergo has direct effects on program outcomes (Domitrovich et al., 2008). An understanding of the MindUP curriculum is significant because it could lead to understanding its value and benefits, which may facilitate motivation to engage in high quality implementation. Since training is the main source of knowledge acquisition, and MindUP implementers share that in their first year they feel unknowledgeable. This could

suggest that there is a component missing in the training. Nonetheless, studies show that having strong coaching and training is significantly better than training alone (Reyes et al., 2012). Taken together, the findings indicate that developing more formal district trainer-implementer meetings and a support framework could mediate this issue regarding low feelings of competence for first time implementers.

Participants expressed the belief that implementation becomes easier over time. Since a part of implementation is adapting MindUP with the school curriculum, participants also expressed that adapting MindUP becomes easier with experience. The ability to adapt a program to fit contextual needs is often discussed as crucial for the success of a program (Damschroder et al., 2009; Domitrovich et al., 2010). Participants echoed this concept, but highlighted its possibility only when competence was developed, which took time and experience. Therefore, developing competence of the MindUP curriculum is important for its effective implementation.

4.5 Limitations

A limitation of this study is that the district trainers were a part of one school board with 16 schools. This could have a potential impact of the findings, since participants most likely had similar experiences, such as attending the same trainings and engaging with the same administration and could potentially limit the generalizability of the study. However, the findings could be applied to similar school boards implementing MindUP, since the findings were not school-board specific. Future studies could explore the effectiveness of implementation from various school boards and/or countries to explore any differences in implementation effectiveness.

The present study did not explicitly ask participants if they were already using SEL practices with students. An interview question did focus on background knowledge needed, but

perhaps gaining a better understanding of SEL practices used prior to MindUP could create a richer account of implementation effectiveness.

Convenience sampling was used, which could lead to over representation of a particular group; which in this case is district trainers. District trainers support MindUP and believe in its effectiveness, which could create a bias in the results. Different results could have been discovered if the current study used probability sampling with different groups such as first-time implementers or implementers who did not view MindUP favourably. Nonetheless, the current study participants did interact with all other implementers, and discussed their observed experiences as well. The present results essentially explain what experts of MindUP believe influences its implementation, and different findings could have resulted if non-experts were asked.

Another limitation is that only one researcher conducted the data analysis. This could lead to a bias in the results and potential untrustworthiness of the results. I took several precautions to ensure trustworthiness. Shenton (2004) suggests that adopting well established research methods help establish credibility, and in turn trustworthiness. The present study used thematic analysis (Braun & Clarke, 2006), who developed a step-by-step guide to thematic analysis, as well as other guidelines and considerations. This methodology has been widely cited within the literature, as well as in similar studies such as this one, which supports its credibility (Shenton, 2004). Lincoln & Guba (1985) recommend developing familiarity between the researcher and the participants because it can help develop a relationship and in turn trust between them, as well as gain a better understanding of the organization. I attended the MindUP training session at the beginning of the year and some meetings where key stake holders of the university-school board partnership were present. This helped me meet the participants prior to

conducting the study, as well as better understand MindUP and the schoolboard implementing it, and the nature of the university-school board partnership. Furthermore, transparency throughout the data analysis process was strived for. Discussion of bracketing, developing reflective commentary through the use of memos, consultation with colleagues and my supervisor, and the use of the 'self-statement,' all contribute to helping me strive to objectively analyze the results (see Methods Section).

When comparing the present study to the Matsuba et al. (2020), it is clear that the use of triangulation could have been beneficial for providing a more in-depth study of implementation, but would most likely be outside the scope of a Master's Thesis (Shenton, 2004). Future studies could build on the present study by analyzing other forms of data, such as observational data, written diaries of implementers, and questionnaires, as was done in the Matsuba et al. (2020).

4.6 Implications and Future Directions

The purpose of the present study was to explore factors that affect effective MindUP implementation from the perspective of district trainers (expert implementers). This thesis adds to the limited research regarding successful implementation of MindUP in the context of implementer perspectives. Since SEL programs often have problems translating to real world settings, exploring what makes the real world setting as hospitable to the program as possible is important, since implementing the program as intended is an important feature of fidelity in implementation. There have been few qualitative studies that focus on implementation of MindUP, but never has one solely focused on implementer perspectives for successful implementation. The results add to the limited research on implementation facilitators and barriers to the MindUP program from an implementer perspective. There is various literature on general SEL implementation, but, every program is unique, and thus benefits from a review of

factors that can make it successful. Future research could benefit from exploring if the four themes and their subthemes

The research by Matsuba et al. (2020) did a thorough investigation regarding implementation effectiveness of MindUP in Northern Uganda. The present study and the Matsuba et al. (2020) study had some similarities such as the facilitators to implementation being the benefits to teachers and students, but the challenges to implementation were location-specific. The present study contributes to the literature similarly, since it was done in the Canadian context.

Maloney et al., (2016) found that implementers perceived that they would benefit from more training. The present study builds on this past finding in that it provides more specific directions regarding support and training. A recommendation is the development of a formal expectation for district trainers and other implementers to meet, either one-on-one or in groups, for support. Another option would be to train additional district trainers, one from each school, so that implementers have an in-house MindUP expert that they can use as a support. This recommendation comes from the fact that implementers seemed to mostly interact with the district trainers assigned to their schools. Future studies could explore the relationship between these additional formal supports and perceived competence, and its effects on first-time implementers. This would be significant since a strong theme throughout the present study was that first-time implementers are often felt too overwhelmed to implement effectively.

Recommendations regarding training include the idea that expert implementers could express their support and experiences of MindUP during the initial training, such as the effectiveness of it or teacher benefits, which could help with developing support of the program, since implementers could see value in it (Deci & Ryan, 2000). Another recommendation

regarding training includes facilitating a trauma-informed care workshop within the context of MindUP, since it seemed to be a great aid in developing competence in the MindUP curriculum. Since various challenges to implementation stemmed from a lack of competence, this could be very beneficial for effective MindUP implementation. Future studies could further explore the effectiveness of integrating a trauma-informed framework within MindUP, since trauma-informed care is best delivered when coupled with an SEL program.

Incorporating a Self-Determination Theory lens during trainings and within the schools, could help with effective implementation. Creating a hospitable environment for implementers to thrive could be reached by emphasizing and supporting trusting relationships, the development of competence and understanding, and implementer autonomy to implement MindUP. This hospitable environment could create effective implementers, which could lead to positive mental health results for implementers and students.

The implications of increased competence through trauma-informed care, increased formal supports, SDT lens in training and application, and a school-wide approach, could create a more holistic approach to implementing MindUP, where implementer's core psychological needs are met, and in turn, increase effectiveness of implementation. It is likely that when MindUP is implemented effectively, it can become effective in equipping students with tools that could decrease mental health issues. By creating a hospitable environment for MindUP to be implemented with high quality, this universal program can help all students.

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Appendices

Appendix A

Email Invitation Sent Out By Researcher

Hello ____.

My name is Maria Jelic and I am the Western University student who is doing research on MindUP. Thank you so much for having me on the conference call on Tuesday. Just a recap - my thesis is going to be exploring what are facilitators and barriers for teachers to implement MindUP so that MindUP can be a long-term program. I would love to interview you to help me reach this goal. In this email, you will find a couple of attached documents.

Email Invitation - this is the official invitation for you to participate. Take a look! (The highlights are that this will take 30-45 mins, depending on how much you want to chat, and you will receive a $20.00 gift card afterward).

Consent Form- this is a form that further outlines the study. If we were meeting in real life, I would provide this to you when we met, and ask you to sign it after the study was done. Please just take a look, no need to sign anything just yet.

Interview Questions - this is just the questions I plan on asking you. No need to prepare anything, this is just so you know what to expect.

And that is it! If you do decide to participate please email me at [redacted] and we can set up a day and time to do a virtual interview.

Thank you so much for your time, I truly appreciate it.

Maria Jelic

Appendix B
Official Email Invitation

Subject Line: Invitation to participate in an interview for MindUP for Young Children research project

Hello,

As part of our ongoing research to evaluate the success factors in the implementation of MindUP in primary classrooms, we are inviting you to participate in a brief interview to share your perspectives as a district trainer.

One of our graduate students, Maria Jelic, will be conducting the interviews as part of her Master's thesis. The data will be utilized by the Centre for School Mental Health at Western University for the MindUP for Young Children research project. Your identity will be kept confidential in any reports or presentations that result from the study.

Your participation in the interview is voluntary and you may choose to withdraw at any time. Interviews will be scheduled at a time that is convenient for you during the months of April and May. The interviews will take place either face-to-face at the board office or your school, or over the phone. The interview will take approximately 30-45 minutes. Should you choose to participate in the interview, you will receive a $20.00 gift card.

Please see the attached information letter and consent form for further details. If you are interested in participating, please contact Maria Jelic via reply email [redacted] to schedule an interview.

Thank you,

[redacted]

Appendix C
Consent Letter and Consent Form

Consent Letter

Study Title: Sustainable Implementation of MindUP

Invitation to participate:

I am a student in the Faculty of Education at Western University who is conducting a research project about the implementation of MindUP, in collaboration with Dr. Claire Crooks. I am writing to invite you to be part of it as an administrator at the [redacted] School board who has played a key role in developing and implementing this project. Participation in the study is not mandatory and will not affect your relationship with Western University or [redacted].

The study will explore concepts that influence educator's motivation to implement MindUP in schools. Some educators have gone above and beyond the call of duty, by becoming District Trainers. I will explore what motivated them to become District Trainers. I will explore these concepts, in hopes of them being generalizable to new educators signing up to participate in MindUP. If you agree to be involved, please sign the consent form at the end of this letter.

This study will take place during the 2019-2020 academic year. You are being asked to participate in an audio-recorded interview about both MindUP™ and the Trauma-Informed Framework, which will happen near the end of the school year. It is expected that the interview will take approximately 30-45 minutes. If you agree to participate, your interview will be audio recorded. The interview will take place at a location coordinated for your convenience. You will have the opportunity to review and revise your interview responses once they have been transcribed via a transcript provided to you through email.

Your identity will be kept confidential in any reports or presentations that result from the study. Audio recordings from the interview will be erased immediately following transcription of the recording, which will be de-identified.

In accordance with Western University policy and Canadian Institute of Health Information policy all data will be kept for 5 years and then permanently deleted from the hard drives and servers at the Centre for School Mental Health. The consent form will be stored in a locked filing cabinet at the Centre for School Mental Health and participant data will be housed in a secured, password protected computer at the Centre. Representatives of the University of Western Ontario Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research. If data are collected during the project which may be required to report by law, I have a duty to report this information.

The risks associated with participation in the interview are low. If you experience stress while participating in the interview, you may find it beneficial to access these websites describing strategies for handling stress http://www.scholastic.com/teachers/article/15-stress-busting-tips-teachers and student behavior http://www.scholastic.com/teachers/article/25-sure-fire-strategies-handling-difficult-students . A benefit of this study is that it provides an opportunity to consider how your support and leadership have had impacts on the implementation of the MindUP™ program in a Trauma-Informed Framework.

Your participation in the interview is voluntary. If you decide to withdraw from participation in the interview, you will have a choice of whether the information that was collected prior to you ending the interview will still be used. No new information will be collected without your permission. You have the right to not answer individual questions, to answer none of the questions, or to end the interview at any time. If you choose not to participate

or to end the interview at any time, it will have no effect on your employment. You do not waive any legal right by signing this consent form.

Should you choose to participate in the interviews, you will receive a $20.00 gift card. You will receive these gift cards even if you choose to not complete the whole task.

If you would like more information about this research project, the interview, or your role in the research project, please contact me by phone [redacted] or email [redacted]. Concerns about your participation in this study can be forwarded to Western University's Office of Research Ethics at [redacted].

Sincerely,

[Redacted]

Maria Jelic

Consent Form

Study Title: Sustainable Implementation of MindUP

I have read and understand the attached letter of information regarding the study entitled "Sustainable Implementation of MindUP" All questions have been answered to my satisfaction. I have kept a copy of the letter describing the study and this permission slip. I agree to participate (as indicated below) and have had any questions answered.

☐ Yes, I agree to participate in an interview

☐ No, I do not agree to participate in an interview

Participant Signature: _____

Date:_____

Name (please print):_____

Person Obtaining Consent Signature: _____

Date:_____

Name (please print):_____

THIS SIGNED COPY OF CONSENT AND THE LETTER (ABOVE) ARE FOR YOUR RECORDS

Appendix D

Interview Questions for Participants

1. What motivated you to be a lead trainer?

2. What are the necessary attitudes and beliefs in order for a teacher to effectively implement MindUP in their classroom?

3. What kind of background knowledge or personal practices would benefit the implementation of MindUP?

4. What personal characteristics should an individual have to be a good MindUP educator?

5. What external factors influence how effective an educator is in delivering MindUP?

6. Do you think using the trauma-informed care model helps educators implement MindUP?

7. What are the key things you do, or provide, to support intervention educators?

8. In what ways are relationships important in your work?

9. a. What organizational characteristics are needed for MindUP to be implemented successfully?

   b. What role do administrators play?

10. a. To what degree do educators feel they can accommodate or adapt MindUP in the classroom?

   b. What strategies do you recommend to extend the program?

11. What challenges have you faced when implementing MindUP?

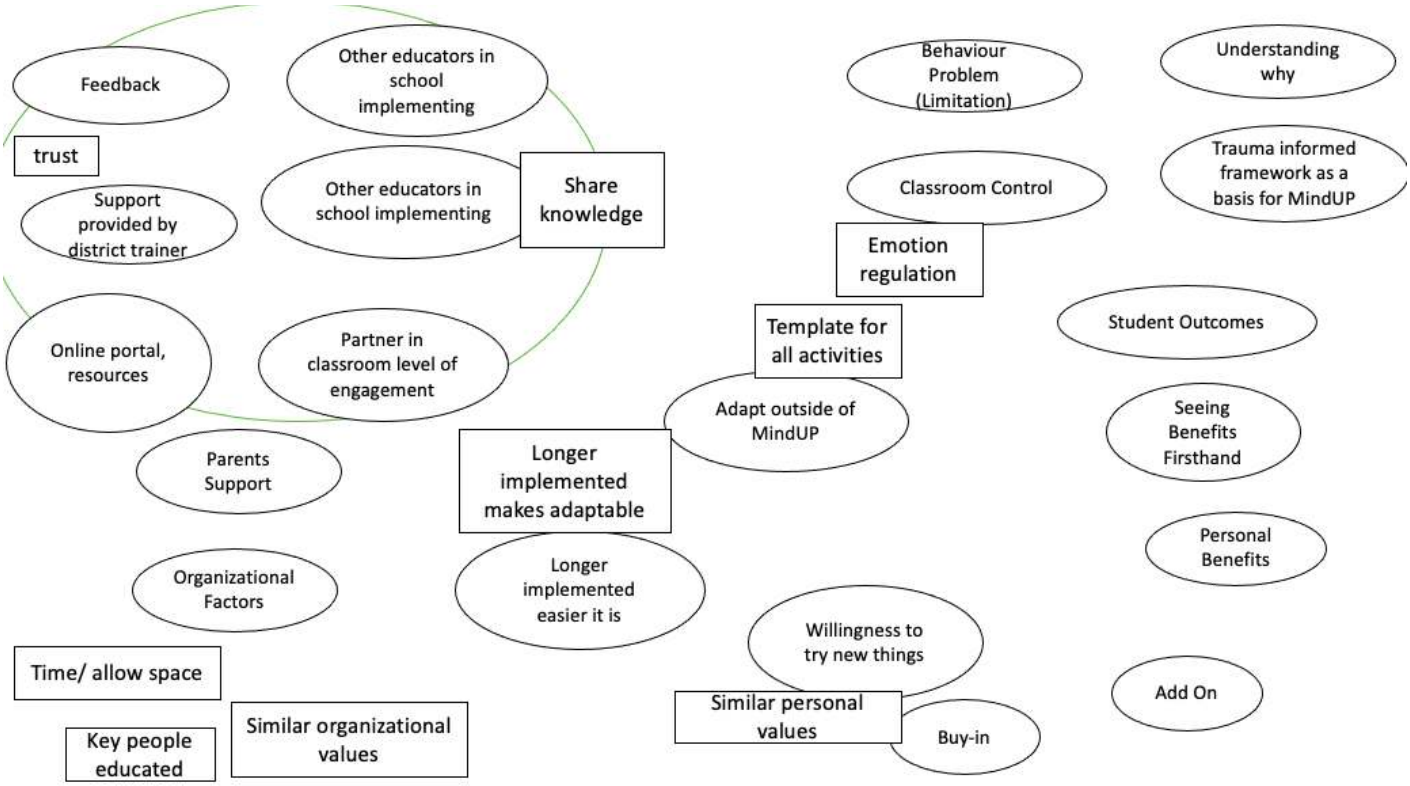
12. What are the advantages of having MindUP in the classroom?

13. Would it be helpful to receive feedback on your MindUP implementation?

14. What advice would you like to give the next generation of intervention educators?

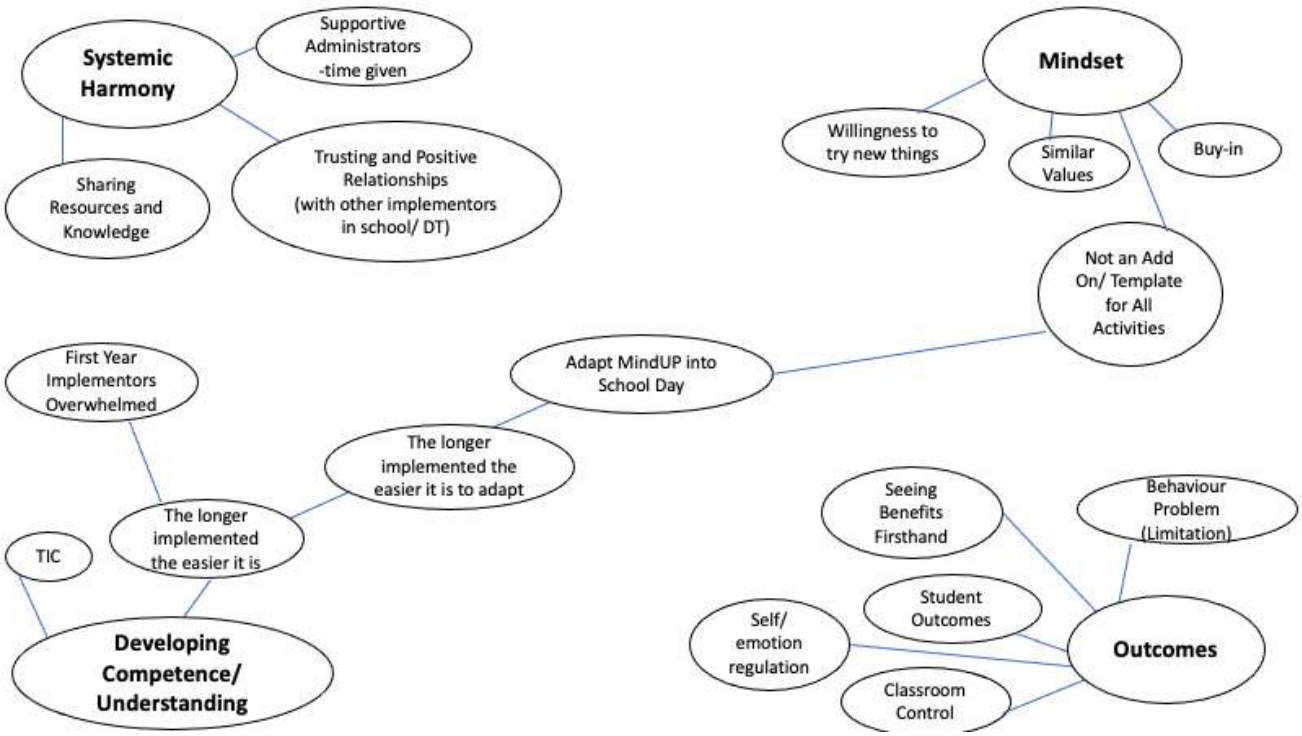
Appendix E
Figures

Figure E1: Thematic Map 1



Note. The big circle was a potential grouping of codes. The circles are potential themes, and the squares are potential subthemes.

Figure E2. Thematic Map 2



Note. The circles with bolded texts are potential themes, the circles with regular texts are potential subthemes.

Figure E3. Final Thematic Conceptualization

Themes	**Subthemes**	**Key Points**
Systemic Factors	Resources	Online Portal Share Knowledge Support Provided by District Trainer
	Relationships	Advice Trust Questions Feedback
	School Culture	Partner in classroom Supportive Administration Time Principal Parents Western Positive Talk about MindUP
Individual Factors	Mindset	Flexible Willingness to Try New Things Open Minded Experience with Kids Patient Burnout
	Buy-in	Similar Values Buy-In
	Open to Integrating MindUP into the School Day	Don't View it as an Add On Religion Becomes Classroom Culture Universal Design
Outcomes	Student Engagement	Behaviour Problems Students Engaging
	Evidence of Successful Outcomes	Self/ Emotion Regulation Classroom Control Seeing Benefits First Hand Personal Benefits Students Learning Better Student Growth
Developing Competence	Understanding Why	Helps Understand Children Evidence-Based Previous Knowledge Not Needed

		Trauma-Informed Framework
	Experience with MindUP	First Year Implementer Overwhelmed Adaptability Easier The Longer Implemented Implementation Easier Over Time

Appendix F
Ethics Letter

Western Research

Date: 28 April 2020

To: Dr. Claire Crooks

Project ID: 108218

Study Title: MindUP for Young Children

Application Type: NMREB Amendment Form

Review Type: Delegated

Full Board Reporting Date: 05/Jun/2020

Date Approval Issued: 28/Apr/2020 12:19

REB Approval Expiry Date: 15/Oct/2020

Dear Dr. Claire Crooks,

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Appendix RRR District trainer interview questions	Interview Guide	19/Mar/2020	1
Appendix SSS District trainer interview LOI and consent form	Written Consent/Assent	15/Apr/2020	2
Appendix TTT Email invitation for district trainer interviews	Recruitment Materials	19/Mar/2020	1
ROMEO Crooks - submitted protocol in word April 15, 2020	Protocol	15/Apr/2020	16

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

[redacted]

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Maria Jelic

Curriculum Vitae

Post-Secondary Education and Degrees:	**Master of Art's Counselling Psychology** Western University London, Ontario, Canada 2019-2021
	Bachelor of Arts (Honours) Psychology York University Toronto, Ontario, Canada 2013-2017
Honours and Awards:	**Social Sciences and Humanities Research Council (SSHRC) Scholarship** 2020-2021
	Western Graduate Research Scholarship (WGRS) 2019-2021
Related Work and Volunteer Experience:	**Student Clinician** Family Service Thames Valley London, Ontario, Canada 2020-2021
	Dialectical Behaviour Therapy Group Student Counsellor Canadian Mental Health Association (CMHA) London, Ontario, Canada 2020
	Dialectical Behaviour Therapy Skills-Based Group Student Counsellor Canadian Mental Health Association (CMHA) London, Ontario, Canada 2020
	Crisis Counsellor Volunteer Women's Support Network 2017-2020